					DEPARTMENT	T OF N	OF UTAH ATURAL RES , GAS AND N				AME	FC IDED REPC	RM 3 PRT	
		APP	LICATION I	OR	PERMIT TO DRIL	L				1. WELL NAME and		<b>R</b> 2-30N1BS		
2. TYPE (	OF WORK	RILL NEW WELL (	REENTE	R P&	A WELL DEEP	EN WEL	ι 🗀			3. FIELD OR WILD		L BUTTES		
4. TYPE (										5. UNIT or COMMU			EEMENT	NAME
6. NAME	OF OPERATOR	t .			ed Methane Well: NO					7. OPERATOR PHO		L BUTTES		
8 ADDDI	ESS OF OPERA		RR-MCGEE OI	L & G	GAS ONSHORE, L.P.					9. OPERATOR E-MA		9-6515		
		F	P.O. Box 1737	79, D	enver, CO, 80217					julie.ja	acobson	anadarko	.com	
	RAL LEASE NO L, INDIAN, OF	R STATE)			FEDERAL INI	<b>ERSHII</b> DIAN (	P STATE (	) r	FEE (	12. SURFACE OWN FEDERAL IN	ERSHIP DIAN 🦳	STATI		FEE (
13. NAMI	E OF SURFACE	OWNER (if box :	12 = 'fee')				, <u>,</u>		-0	14. SURFACE OWN		٥	~	~~
15. ADDI	RESS OF SURF	ACE OWNER (if b	ox 12 = 'fee'	)						16. SURFACE OWN	ER E-MA	AIL (if box	12 = 'fe	ee')
17. INDI	AN ALLOTTEE	OR TRIBE NAME			18. INTEND TO COI		LE PRODUCT	ION F	ROM	19. SLANT				
	2 = 'INDIAN')				YES (Submit (		ngling Applicat	ion) ľ	NO 🔲	VERTICAL DIF	RECTION	AL 📵	HORIZON	ITAL 🛑
20. LOC	ATION OF WE	LL		FO	OTAGES	Q	TR-QTR	SI	ECTION	TOWNSHIP	R	ANGE	МЕ	RIDIAN
LOCATI	ON AT SURFAC	CE	54	2 FSI	L 1734 FWL		SESW		30	9.0 S	2	2.0 E		S
Top of U	Ippermost Pro	ducing Zone	12:	22 FS	L 1976 FWL		SESW		30	9.0 S	2	2.0 E		S
At Total	Depth		12:	22 FS	L 1976 FWL		SESW		30	9.0 S	2	2.0 E		S
21. COU	NTY	UINTAH			22. DISTANCE TO N		T LEASE LIN	IE (Fee	et)	23. NUMBER OF AC		<b>DRILLIN</b> 51	UNIT	
					25. DISTANCE TO N (Applied For Drillin	g or Co	ompleted)	AME P	OOL	26. PROPOSED DEF		TVD: 94:	32	
27. ELEV	ATION - GROU	JND LEVEL			28. BOND NUMBER		593			29. SOURCE OF DR				TCARLE
		4925				WYB	000291			WATER RIGHTS AP		8496	IF APP	LICABLE
String	Hala Cina	Casina Cias	Lanath	14/-	Hole, Casing,		_			Comont		Caalia	V: -Id	VA/ -:   t
Surf	Hole Size	Casing Size 8.625	0 - 2470		<b>ight Grade &amp; T</b> 8.0 J-55 LT		0.2		_	Cement Type V		Sacks 180	Yield 1.15	Weight 15.8
Juil		0.023	0 2170		3 33 21					Class G		270	1.15	15.8
Prod	7.875	4.5	0 - 9528	1	1.6 I-80 LT	-&C	12.	.5	Prem	nium Lite High Stre	ngth	310	3.38	11.0
									_	50/50 Poz		1290	1.31	14.3
					A	TTACI	HMENTS		'					
	VERIFY T	HE FOLLOWIN	G ARE ATT	ACH	ED IN ACCORDAN	NCE W	ITH THE U	тан о	OIL AND (	GAS CONSERVATI	ON GE	NERAL F	RULES	
<b>⊮</b> w	ELL PLAT OR	MAP PREPARED E	BY LICENSED	SUR	VEYOR OR ENGINEE	R	СОМ	IPLETE	DRILLING	i PLAN				
AF	FIDAVIT OF S	TATUS OF SURFA	CE OWNER A	GRE	EMENT (IF FEE SURI	FACE)	FOR	4 5. IF	OPERATO	R IS OTHER THAN T	HE LEAS	SE OWNER	<b>t</b>	
DI DRILLED		URVEY PLAN (IF	DIRECTIONA	LLY	OR HORIZONTALLY		<b>№</b> торо	OGRAP	HICAL MAI	P				
NAME L	aura Abrams			TII	<b>FLE</b> Regulatory Analys	t II			PHONE 7	720 929-6356				
SIGNAT	URE			DA	<b>TE</b> 06/22/2011				EMAIL L	aura.Abrams@anadarl	ko.com			
	мвек assign 04751711(			АР	PROVAL				Bol	RAIL				
									Perm	nit Manager				

NBU 922-30N PAD

Drilling Program

1 of 7

# Kerr-McGee Oil & Gas Onshore. L.P.

# NBU 922-30N1BS

Surface: 542 FSL / 1734 FWL SESW BHL: 1222 FSL / 1976 FWL SESW

Section 30 T9S R22E

Uintah County, Utah Mineral Lease: UTU 0463

## **ONSHORE ORDER NO. 1**

#### **DRILLING PROGRAM**

# Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1319	
Birds Nest	1649	Water
Mahogany	2015	Water
Wasatch	4590	Gas
Mesaverde	7209	Gas
MVU2	8175	Gas
MVL1	8742	Gas
TVD	9432	
TD	9528	

# 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

# 4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

# 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

# 6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 922-30N PAD

Drilling Program
2 of 7

#### 7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 9432' TVD, approximately equals 6,225 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,948 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

#### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

# 9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

## Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 922-30N PAD

Drilling Program

3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

#### Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 922-30N PAD

Drilling Program

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

#### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

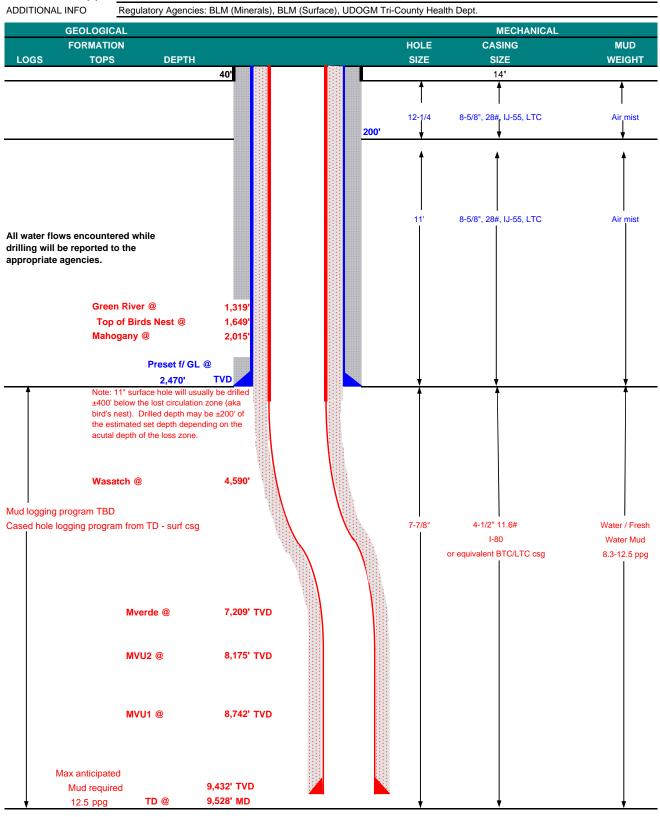
# 10. Other Information:

Please refer to the attached Drilling Program.



# KERR-McGEE OIL & GAS ONSHORE LP <u>DRILLING PROGRAM</u>

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE June 21, 2011 WELL NAME NBU 922-30N1BS 9,432' TVD 9,528' MD TD FINISHED ELEVATION **FIELD** Natural Buttes COUNTY Uintah STATE Utah 4925' SURFACE LOCATION SESW 542 FSL 1734 FWL Sec 30 T 9S R 22E Latitude: 40.001238 Longitude: -109.484461 NAD 83 BTM HOLE LOCATION **SESW** 1222 FSL 1976 FWL Sec 30 T 9S R 22E Latitude: 40.003141 -109.482915 NAD 83 Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde



API Well Number: 43047517110000



# **KERR-McGEE OIL & GAS ONSHORE LP**

## **DRILLING PROGRAM**

CASING PROGRAM	1								DESIGN I	FACTORS	
										LTC	BTC
	SIZE	INT	ERVAL		WT.	GR.	CPLG.	BURST	COLLA	PSE	TENSION
CONDUCTOR	14"	(	)-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,470	28.00	IJ-55	LTC	2.19	1.63	5.75	N/A
								7,780	6,350	279,000	367,000
PRODUCTION	4-1/2"	0	to	9,528	11.60	I-80	LTC/BTC	1.11	1.04	3.12	4.10

**Surface Casing:** 

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

#### **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to	o surface,	option 2 wil	l be utilized	
Option 2 LEAD	1,970'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,088'	Premium Lite II +0.25 pps	310	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,440'	50/50 Poz/G + 10% salt + 2% gel	1,290	35%	14.30	1.31
		+ 0.1% R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### **FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

## ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

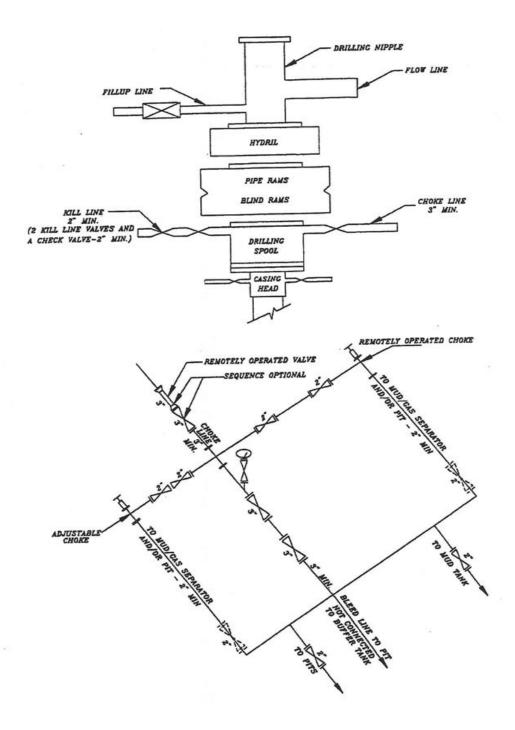
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.	
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.	

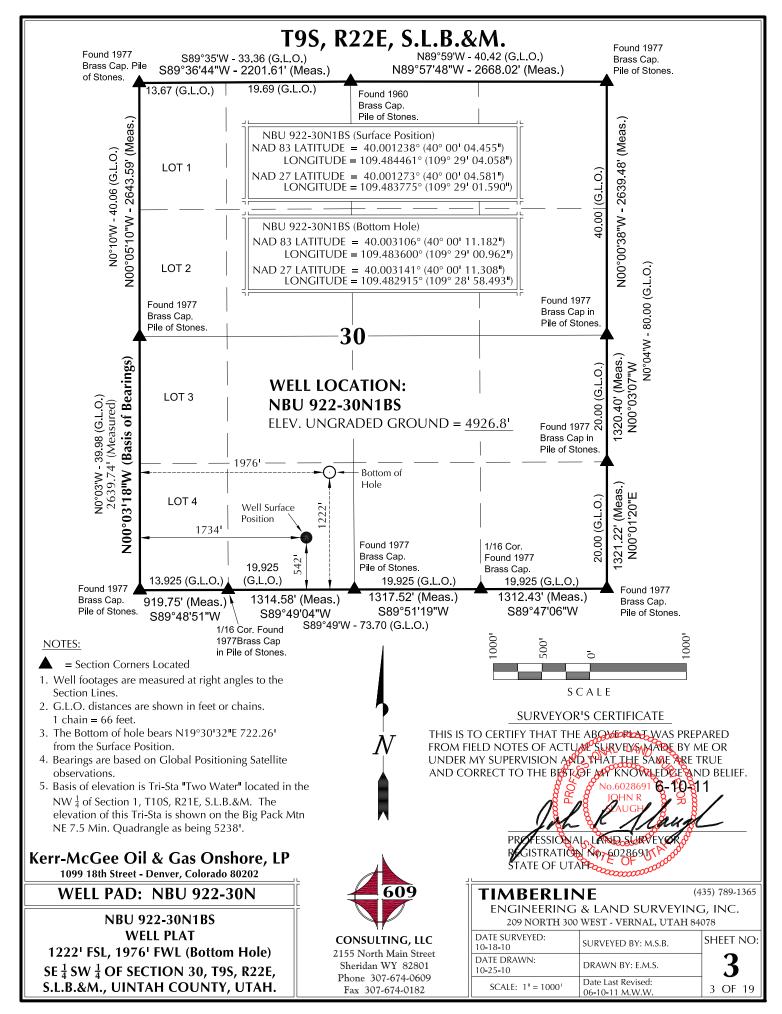
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers		
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 922-30N1BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



	_	Dog	SURFACE POS		1					BOTTOM HOLE	202	
WELL NAME	LATITUDE	LONGIT	UDE LATITU	NAD27 DE LONGI	ITUDE E	OOTAGES	LATIT	NAD	083 LONGITUDE	NAE LATITUDE	LONGITUDE	FOOTAGES
NBU	40°00'04.405					537' FSL	40°00'0		109°29'04.054'			
922-30N1S	40.001224°	109.48453				715' FWL	40.0023		109.484459°	40.002428°	109.483774°	1735' FWL
NBU 922-30K4CS	40°00'04.430 40.001231°	0" 109°29'04 109.48449		103 23 0		539' FSL 724' FWL	40°00'1 40.0039		109°29'00.954' 109.483598°	40°00'14.519" 40.004033°	109°28'58.485" 109.482913°	1547' FSL 1977' FWL
NBU	40°00'04.455					542' FSL	40°00'1		109°29'00.962'		109°28'58.493"	
922-30N1BS	40.001238°	109.48446				734' FWL	40.003		109.483600°	40.003141°	109.482915°	1976' FWL
NBU 922-30N4BS NBU	40°00'04.480 40.001245° 40°00'04.507	109.48442	26° 40.00128	0° 109.483	740° 1	544' FSL 744' FWL	40°00'0 40.0013 40°00'1	319°	109°29'00.977' 109.483605°	40.001354°	109°28'58.509" 109.482919°	571' FSL 1974' FWL
922-30J4CS	40.001252°	109°29'03 109.48439				547' FSL 754' FWL	40.0035		109°28'45.329' 109.479258°	40.003595°	109°28'42.861" 109.478572°	1384' FSL 1673' FEL
NBU	40°00'04.532	1.00 =0 00				550' FSL	40°00'0		109°28'45.316		109°28'42.848"	
922-30O1BS NBU	40.001259° 40°00'04.557	109.48435 " 109°29'03				763' FWL 552' FSL	40.0026 40°00'0		109.479254° 109°28'45.304'	40.002701° 40°00'06.501"	109.478569° 109°28'42.836"	1672' FEL 732' FSL
922-30O1CS	40.001266°	109.48432				773' FWL	40.0017		109.479251°	40.001806°	109.478566°	1671' FEL
NBU 184	40°00'04.592 40.001276°	109°29'03 109.48427				556' FSL 787' FWL						
	40.001270	109.40427	-	TIVE COORDIN			Position	to Botto	om Hole			
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST		NAME	NOR		WELL NAM	ME NORTH	EAST
NBU	426.11	19.8'	NBU	1,008.3	251.5	NBU		680.		NBU	27.2	230.1
922-30N1S			922-30K4CS			922-30				922-30N4B	S   Z/.Z	
WELL NAME NBU	NORTH	EAST	WELL NAME NBU	NORTH	EAST	NIDII	NAME	NOR		_	1	
922-30J4CS	840.81	1,438.71	922-30O1BS	512.2'	1,430.01	922-30	O1CS	183.			(38)	
		A7=1	4.00667°	1	1					160° 41'52"E m Hol 10 Bottom 677 10 AZ 59.6977	(6)	
	N		4.00007 ∤"E - 1039.	22'	#					41'52"E HOTO HOTO HOTO HOTO HOTO HOTO HOTO HOT	180	
			ttom Hole)		,/	AZ=19.5	50889°	,	/0°	41, Botto, 691,	' _ <b> </b>	
		, , , , , , ,		/		°30'32"E			/ N569	(10/1=2)		
			1		<b>/</b> (	To Botto	m Hol	e)	2500 11			
		Z=02.656	1	/ /			/	70.2	97519.01	AZ=82.63	306	
7		9'23"E -		, ,			/ P	17'33"	09250° 0.01' E-1519.01' Om Hole) NE	AZ=82.63 (To Bottom 32°37'59"E	1433.02	\ _ <del>_</del>
<b>A</b> T	(To	Bottom F		/ /		/	N70°	Bott	$o_{UL}$ . N8	32°37'59"E		1
Ŋ												
				10' 10'	10'	/	(\	•			7	7
1			10'	101/101/101/101	10'	<u></u>			-	231.69		١ ,
			• ا	7/100	-	<u></u>	(\		 3°14'56"E ·	. 231.69' Hole)	Botto	m of
		1157	"W _	S & CS	-	184 <u>1</u>			 3°14'56"E ·	. 231.69' Hole)		m of
	S	75°01'57	"W _	S & CS	-	184 <u>1</u>			-	. 231.69' Hole)	Botto	m of
	S	75°01'57	"W _	S & CS	-	<u></u>			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S A	75°01'57 72=255.0	"W _	S & CS	22-3001BS	L: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S	75°01'57 72=255.05	"W _	2-30K4CS	922-3001BS	L: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S A	75°01'57 72=255.0	3250° SINOE-226	922-30K4CS	BU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S 	75°01'57 72=255.00	3250° SINOE-226	922-30K4CS	NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
		75°01'57 72=255.0°	"W _	NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
		75°01'57 72=255.0°	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	Ā	75°01'57 75°22'55.0'	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	L: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S A	75°01'57 72=255.05	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S	75°01'57 72=255.05	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S A	75°01'57 72=255.0°	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	S 	75°01'57 72=255.05	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
RASIS OF			3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
	bearings is	THE WEST	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
OF THE SV		THE WEST	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
OF THE S\ S.L.B.&M. GLOBAL F	BEARINGS IS W <sup>1</sup> 4 OF SECTI WHICH IS TA POSITIONING	THE WEST ION 30, T9 AKEN FRO! G SATELLIT	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto	m of
OF THE S\ S.L.B.&M. GLOBAL F	BEARINGS IS W <sup>1</sup> 4 OF SECTI WHICH IS TA	THE WEST ION 30, T9 AKEN FRO! G SATELLIT	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			3°14'56"E - To Bottom b Az=83.24	231.69 Hole) 1889°	Botto	
OF THE S\ S.L.B.&M. GLOBAL F	BEARINGS IS W <sup>1</sup> 4 OF SECTI WHICH IS TA POSITIONING	THE WEST ION 30, T9 AKEN FRO! G SATELLIT	3250° SINOS-326 NBN	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			 3°14'56"E ·	. 231.69' Hole)	Botto Hole	m of
OF THE S\ S.L.B.&M. GLOBAL F	BEARINGS IS W <sup>1</sup> 4 OF SECTI WHICH IS TA POSITIONING	THE WEST ION 30, T9 AKEN FRO! G SATELLIT	SINBU 922-300, 1.1 NBU 922-30N15.	1: NBU 922-30K4CS	.1' NBU 922-3001BS	WELL: NBU 184			3°14'56"E - To Bottom b Az=83.24	231.69 Hole) 1889°	Botto Hole	
OF THE SV S.L.B.&M. GLOBAL F OBSERVA	BEARINGS IS  W 1/4 OF SECTI  WHICH IS TA  POSITIONING  TIONS TO BE	THE WEST ION 30, T9 AKEN FROM G SATELLIT EAR NO0°03	SIND 3250° SIND 184 W.H.=75.20472° 74.1' NBU 184 W.H.=75.20402.30N 18.1 NBU 184 W.H.=75.20402.30N 184 W.H.=75.20402.30N 18.1 NBU 184 W.H.=75.20402.30N 184 W.H.=7	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.41528° 34.1' NBU 922-30I4CS	.1' NBU 922-3001BS	WELL: NBU 184			3°14'56"E - To Bottom b Az=83.24	231.69 Hole) 1889°	Botto Hole	
OF THE SV S.L.B.&M. GLOBAL F OBSERVA Kerr-Mc0 1099 1	BEARINGS IS W \( \frac{1}{4} \) OF SECTI WHICH IS TO POSITIONING TIONS TO BE	THE WEST ION 30, T9 AKEN FRO! G SATELLIT EAR N00°0: & <b>Gas (</b> enver, Colo	SINOE-2250° SINOE-2520° SINOE S, R22 E 3118"W. H=75.20472.71 NBU 184 W.H=75.20472.72 VIII NBU 922-30018	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.41528° 34.1' NBU 922-30I4CS	.1' NBU 922-3001BS	EXISTING WELL: NBU 184		N8 (1	3°14'56"E - Fo Bottom H Az=83.24	231.69 Hole) 1889° SCAI	Botto Hole	
OF THE SV S.L.B.&M. GLOBAL F OBSERVA* Kerr-Mc( 1099 1	BEARINGS IS W 1/4 OF SECTI WHICH IS TA POSITIONING TIONS TO BE  Gee Oil 6 8th Street - D  L PAD -	THE WEST ION 30, T9 AKEN FRO/ G SATELLIT EAR NO0°03 & Gas ( enver, Colo NBU 92	SINDE STANDE - 250° SINDE - 250° SINDE STANDE	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.41528° 34.1' NBU 922-30I4CS	.1' NBU 922-3001BS	WELL: NBU 184		N8 (T	3°14'56"E - 10 Bottom H Az=83.24	231.69 Hole) 1889° SCAI	Botto Hole	35) 789-1365
OF THE SV S.L.B.&M. GLOBAL F OBSERVA* Kerr-Mc( 1099 1	BEARINGS IS W 1/4 OF SECTI WHICH IS TO POSITIONING TIONS TO BE  Gee Oil 6 8th Street - D  L PAD -	THE WEST ION 30, T9 AKEN FRO/ G SATELLIT EAR NO0°03 & Gas ( enver, Colo NBU 92 ERFERENC	SINDE STANDE - 252-30N  SINDE	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' <b>NBU 922-30K4CS</b> Az. to Exist. NBU 184 W.H.=75.19972° 54.2' <b>NBU 922-30N1BS</b> Az. to Exist. NBU 184 W.H.=75.17389° 44.1' <b>NBU 922-30N4BS</b> Az. to Exist. NBU 184 W.H.=75.41528° 34.1' <b>NBU 922-30I4CS</b>	.1' NBU 922-3001BS	EXISTING WELL: NBU 184		N8 (T	AZ=83.24  MBERL NGINEERIN	© SCAI	Botto Hole	35) 789-1365 G, INC.
OF THE SUSLER & M. GLOBAL FOR SERVATE OBSERVATE OF THE SUSLE OF THE SU	BEARINGS IS  W \(\frac{1}{4}\) OF SECTI  WHICH IS TA  POSITIONING  TIONS TO BE  Bth Street - D  L PAD -  L PAD INTE  WELLS - NB	THE WEST ION 30, T9 AKEN FROM G SATELLIT EAR NO0°03 & Gas ( enver, Colo NBU 92 ERFERENC U 922-30N1	SINDER STANDARD 18 NBU 1875 2250° SINDER STANDARD 18 NBU 1	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.47588° 34.1' NBU 922-30I4CS	Az. to Exist. NBU 184 W.H.=75.53611° 24.1¹ NBU 922-3001BS	EXISTING WELL: NBU 184		N8 (1)	MBERL NGINEERIN 209 NORTH	5.231.69 Hole) 1889° S C A I	Botto Hole  L E  (4 SURVEYING RNAL, UTAH 84	35) 789-1365 G, INC.
OF THE SV S.L.B.&M. GLOBAL F OBSERVA* Kerr-Mc0 1099 1 WEL WEL	BEARINGS IS  W \( \frac{1}{4} \) OF SECTI  WHICH IS T.  POSITIONING  TIONS TO BE  Sth Street - D  L PAD -  L PAD INTI  WELLS - NBI  1922-30K4CS,  J 922-30N4BS	THE WEST ION 30, T9 AKEN FROM G SATELLIT EAR NO0°03  WERFERENC U 922-30N1 NBU 922-3 , NBU 922-3	SINDE-2250° SINDE-	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.47588° 34.1' NBU 922-30I4CS	Az. to Exist. NBU 184 W.H.=75.53611° 24.1' NBU 922-3001BS	EXISTING WELL: NBU 1844	Coet	N8 (1)	MBERL NGINEERIN 209 NORTH	S C A I  NE NG & LAND 300 WEST - VER  SURVEYED B	Botto Hole  L E  (4  SURVEYINC  RNAL, UTAH 844  BY: M.S.B.	35) 789-1365 G, INC.
OF THE SV S.L.B.&M. GLOBAL F OBSERVA* Kerr-Mc0 1099 1 WEL WEL NBU NBU	BEARINGS IS  W \( \frac{1}{4} \) OF SECTI  WHICH IS TO  POSITIONING  TIONS TO BE  BEARINGS IS  BEARINGS IS  WHICH IS TO  BEARINGS  B	THE WEST ION 30, T9 AKEN FRO/ G SATELLIT EAR N00°0:  WBU 92: ERFERENC U 922-30N1 NBU 922-3 , NBU 922-3 , NBU 922-3	SINDE-2250° SINDE-	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.41528° 34.1' NBU 922-30I4CS	Az. to Exist. NBU 184 W.H.=75.53611° 24.1' NBU 922-3001BS Az. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS	EXISTING WELL: NBU 1844	C cet	N8 (1)	MBERL NGINEERIN 209 NORTH E SURVEYED: 3°14'56"E - 70 80 80 80 80 80 80 80 80 80 80 80 80 80	5.231.69 Hole) 1889° S C A I	Botto Hole  L E  (4  SURVEYINC  RNAL, UTAH 844  BY: M.S.B.	35) 789-1365 G, INC. 078
OF THE SV S.L.B.&M. GLOBAL F OBSERVA* Kerr-Mc0 1099 1 WEL WEL NBU NBU LOCA	BEARINGS IS  W \( \frac{1}{4} \) OF SECTI  WHICH IS T.  POSITIONING  TIONS TO BE  Sth Street - D  L PAD -  L PAD INTI  WELLS - NBI  1922-30K4CS,  J 922-30N4BS	THE WEST ION 30, T9 AKEN FROM G SATELLIT EAR NO0°03  RBU 92 ERFERENC U 922-30N1 NBU 922-3 , NBU 922-3	SINOE-250°  SINOE-	Az. to Exist. NBU 184 W.H.=75.22361° 64.1' NBU 922-30K4CS Az. to Exist. NBU 184 W.H.=75.19972° 54.2' NBU 922-30N1BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.17389° 44.1' NBU 922-30N4BS Az. to Exist. NBU 184 W.H.=75.41528° 34.1' NBU 922-30I4CS	Az. to Exist. NBU 184 W.H.=75.53611° 24.1' NBU 922-3001BS abound by The St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 184 W.H.=75.4744° 14.1' NBU 922-3001CS about the St. to Exist. NBU 922-3001CS about the	EXISTING WELL: NBU 1844	C cet	N8 (1)  TI E DATE 10-18 DATE 10-25	MBERL NGINEERIN 209 NORTH E SURVEYED: 3°14'56"E - 70 80 80 80 80 80 80 80 80 80 80 80 80 80	S C A I  NE NG & LAND 300 WEST - VER  SURVEYED B	Botto Hole  L E  (4  SURVEYINC  RNAL, UTAH 846  BY: M.S.B.  E.M.S.  vised:	35) 789-1365 G, INC.

EXISTING GRADE @ CENTER OF WELL PAD = 4926.91 FINISHED GRADE ELEVATION = 4925.51 **CUT SLOPES = 1:1** FILL SLOPES = 1.5:1**TOTAL WELL PAD AREA = 3.32 ACRES TOTAL DISTURBANCE AREA = 4.18 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00** 

# Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 922-30N

WELL PAD - LOCATION LAYOUT NBU 922-30N1S, NBU 922-30K4CS, NBU 922-30N1BS, NBU 922-30N4BS, NBU 922-30J4CS, NBU 922-30O1LS & NBU 922-30O1CS LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH



609

CONSULTING, LLC 2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

TOTAL CUT FOR WELL PAD = 16,733 C.Y. TOTAL FILL FOR WELL PAD = 15,721 C.Y. TOPSOIL @ 6" DEPTH =1,899 C.Y. EXCESS MATERIAL = 1,012 C.Y.

# **RESERVE PIT QUANTITIES**

WELL PAD QUANTITIES

**TOTAL CUT FOR RESERVE PIT** +/- 7,780 CY RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 29,550 BARRELS

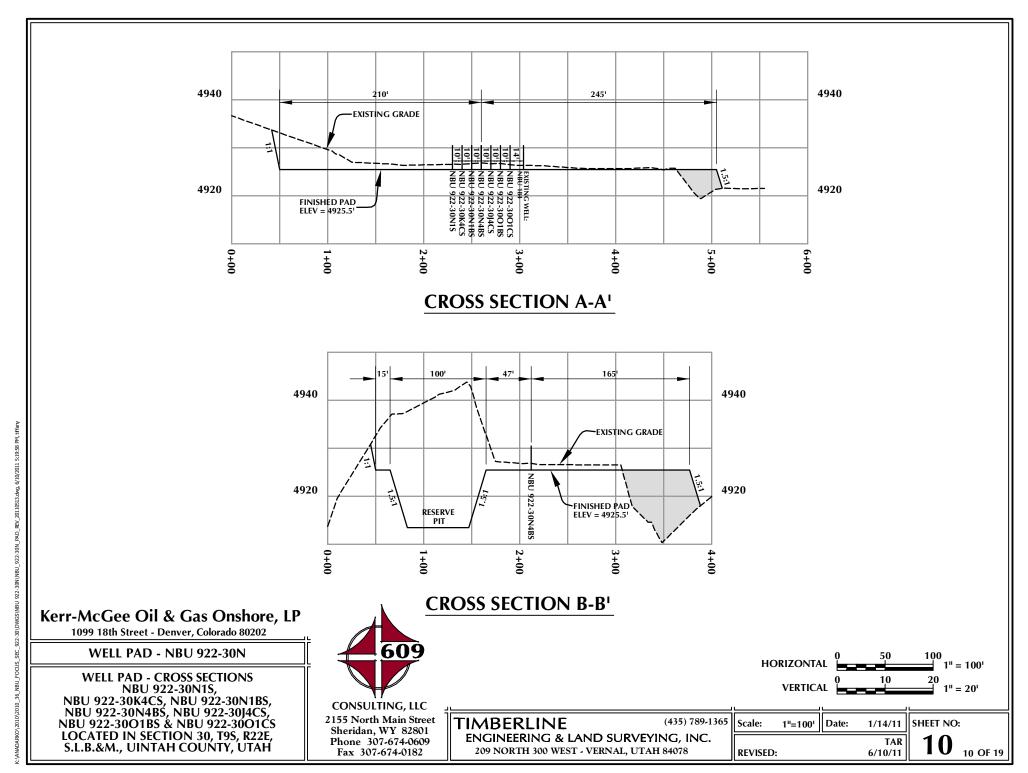
**TIMBERLINE** 

(435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

# WELL PAD LEGEND **EXISTING WELL LOCATION** PROPOSED WELL LOCATION PROPOSED BOTTOM HOLE LOCATION EXISTING CONTOURS (2' INTERVAL) PROPOSED CONTOURS (21 INTERVAL) PPL — PROPOSED PIPELINE — EPL — EXISTING PIPELINE HORIZONTAL == 21 CONTOURS

9 OF 19

1"=60' Date: 1/14/11 **SHEET NO:** TAR 6/10/11 **REVISED:** 



API Well Number: 43047517110000

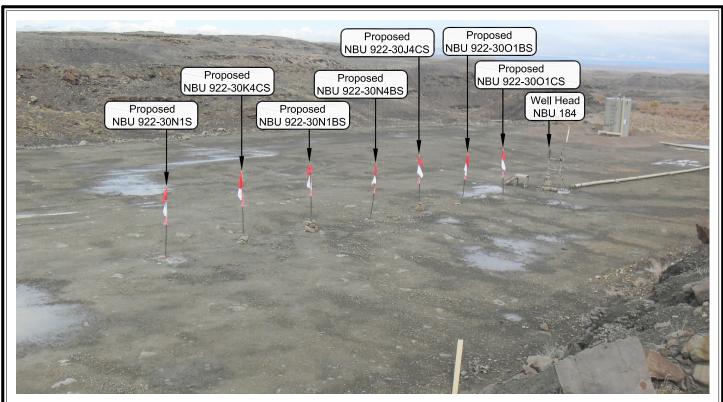


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

**CAMERA ANGLE: NORTHEASTERLY** 



PHOTO VIEW: FROM EXISTING ACCESS ROAD

**CAMERA ANGLE: SOUTHEASTERLY** 

# Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 922-30N

**LOCATION PHOTOS** NBU 922-30N1S, NBU 922-30K4CS, NBU 922-30N1BS, NBU 922-30N4BS, NBU 922-30J4CS, NBU 922-30O1BS & NBU 922-30O1CS LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.



# CONSULTING, LLC

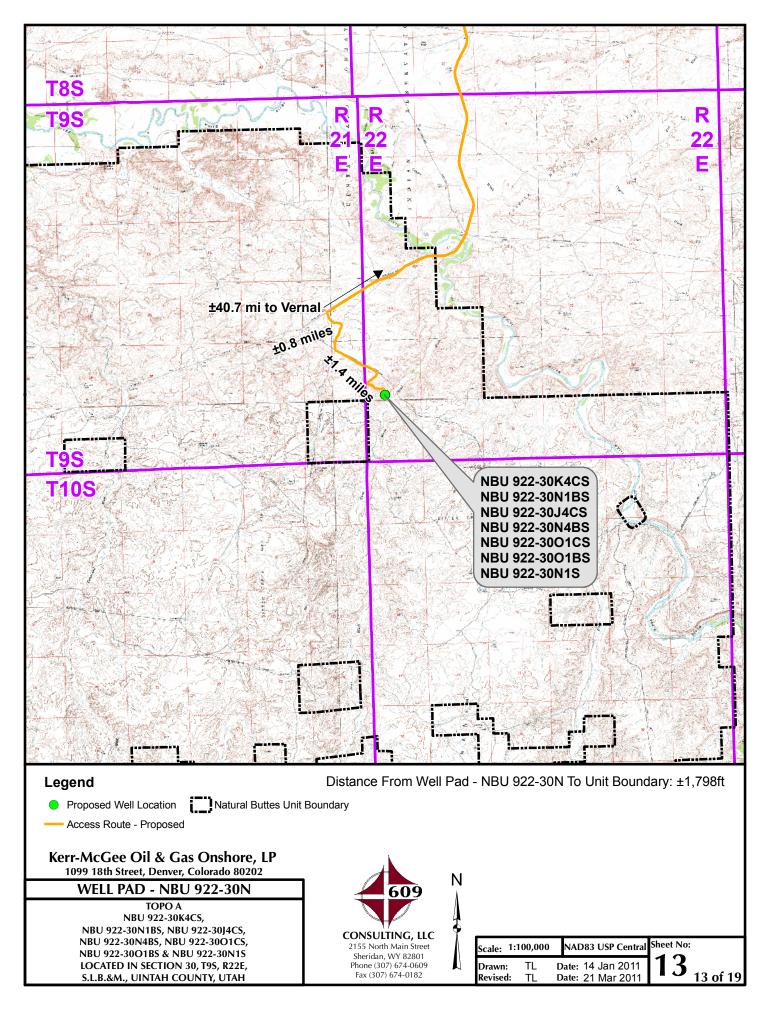
2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

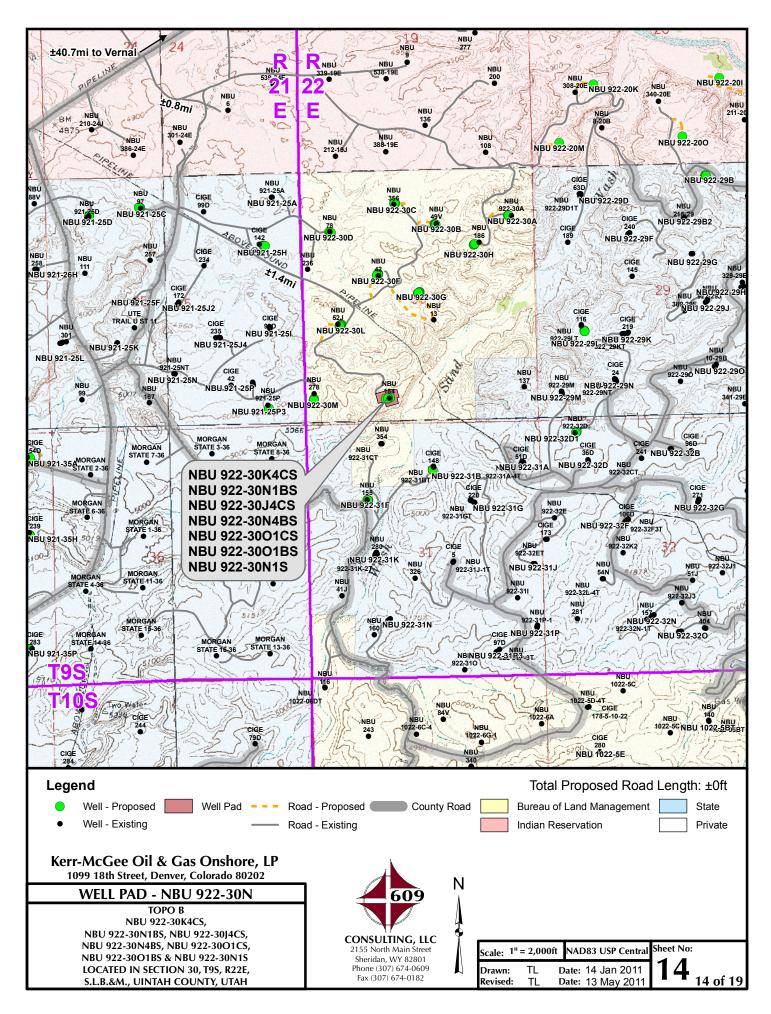
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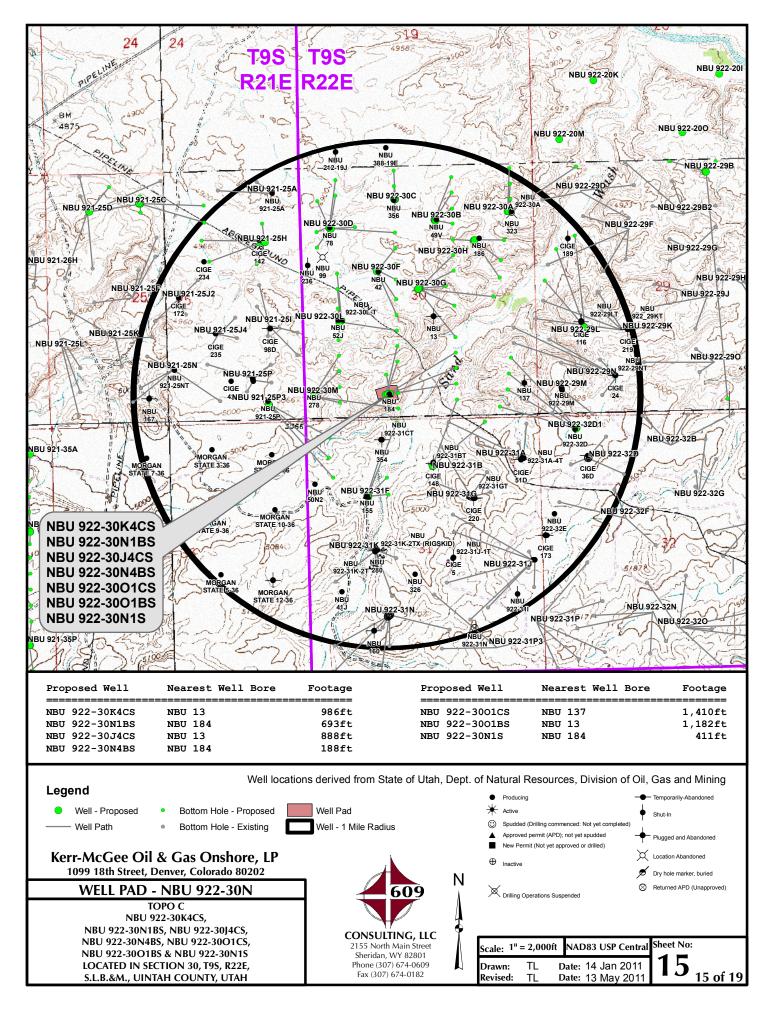
(435) 789-1365

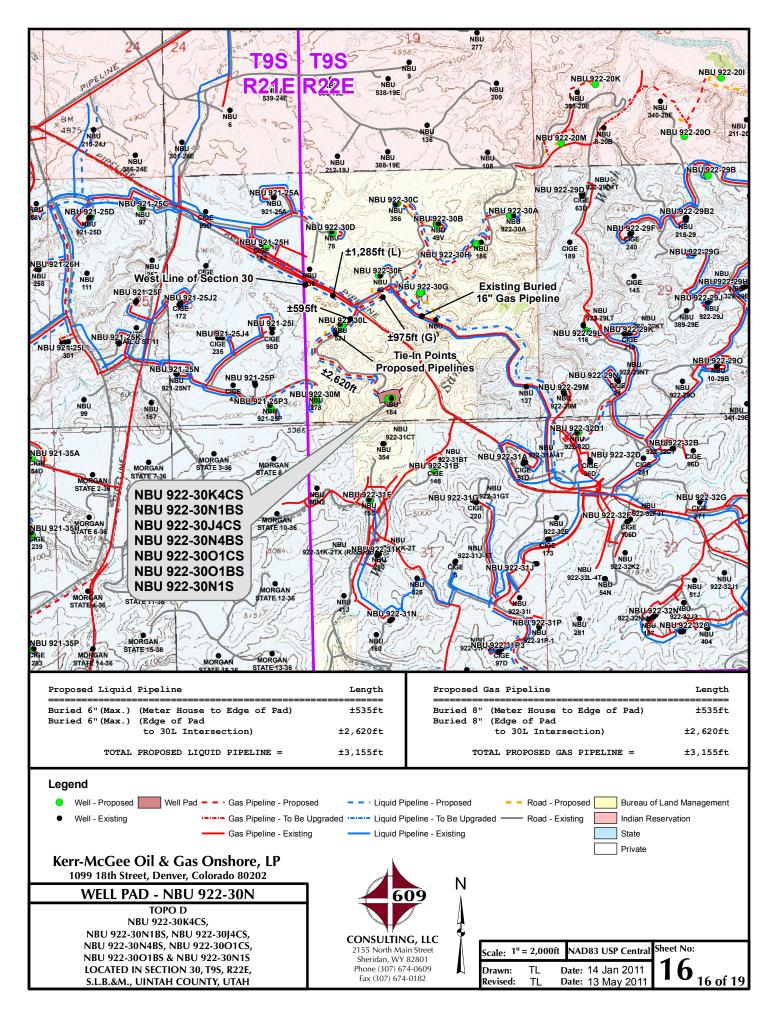
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

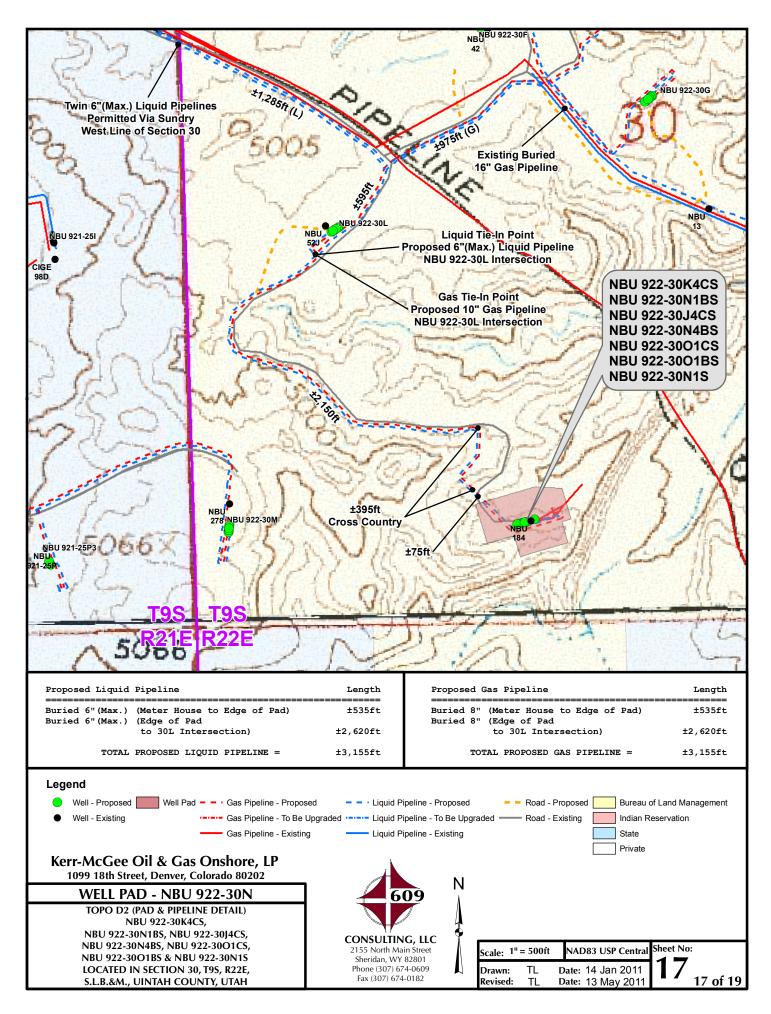
DATE PHOTOS TAKEN: 10-18-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 10-25-10	DRAWN BY: E.M.S.	12
Date Last Revised: 06-10-11 M.W.W.		12 OF 19

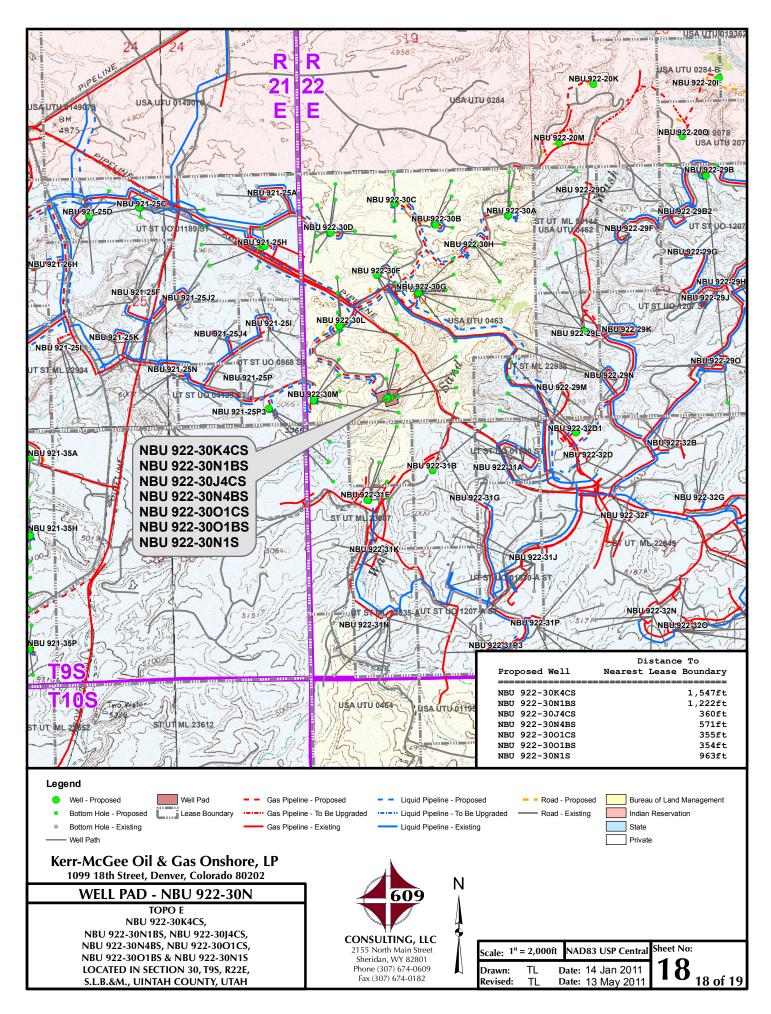












API Well Number: 43047517110000

Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 922-30N WELLS – NBU 922-30K4CS, NBU 922-30N1BS, NBU 922-30J4CS, NBU 922-30N4BS, NBU 922-30O1CS, NBU 922-30O1BS & NBU 922-30N1S Section 30, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.2 miles to a service road to the southeast. Exit left and proceed in a southeasterly, then southeast. Exit left and proceed in a southeasterly, then southeast. Exit left and proceed in a southeasterly, then southeast. Exit left and proceed in a southeasterly, then southeasterly direction along the second service road approximately 1.4 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 42.9 miles in a southerly direction.

**SHEET 19 OF 19** 

API Well Number: 430475171100000 ject: Uintah County, UT UTM12 Scientific Drilling

Rocky Mountain Operations

Site: NBU 922-30N PAD Well: NBU 922-30N1BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY



WELL DETAILS: NBU 922-30N1BS

GL 4926' & KB 9' @ 4935.00ft (ASSUMED)

+N/-S +E/-W Northing Easting Latittude Longitude 0.00 0.00 14530120.01 2065048.90 40° 0' 4.583 N 109° 29' 1.590 W

**DESIGN TARGET DETAILS** 

Name TVD +N/-S +E/-W Northing **Easting** Latitude Longitude Shape **PBHL** 9432.00 680.35 240.89 14530804.35 2065278.18 40° 0' 11.308 N 109° 28' 58.494 WCircle (Radius: 25.0

- plan hits target center

**CASING DETAILS** FORMATION TOP DETAILS **TVDPath MDPath Formation** TVD MD Size Name 1340.01 2465.00 **GREEN RIVER** 1319.00 2540.40 8 5/8" 8.625 4590.00 4685.63 **WASATCH** 7209.00 7304.63 **MESAVERDE** 

**SECTION DETAILS** 

VSect +E/-W TVD MD Inc Azi +N/-S Dleg TFace 0.00 0.00 0.00 0.00 0.00 0.00 0.000.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 17.31 19.50 1152.52 19.50 2575.69 122.35 19.50 1165.63 43.32 2.00 129.79 17.31 540.52 191.38 0.00 2656.34 0.00 573.40 3645.63 0.00 0.00 3550.00 680.35 240.89 1.75 180.00 721.73 0.00 721.73 PBHL\_NBU 922-30N1BS

9527.63 0.00 0.00 9432.00 680.35 240.89 0.00

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US

Ellipsoid: Clarke 1866

Zone: Zone 12N (114 W to 108 W) Location: SECTION 30 T9S R22E

System Datum: Mean Sea Level

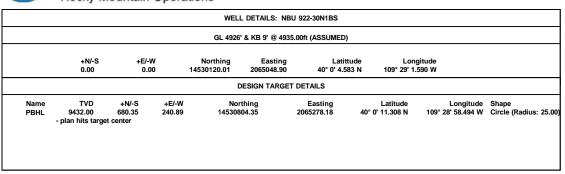
API Well Number: 430475171100@Qoject: Uintah County, UT UTM12 Scientific Drilling Rocky Mountain Operations

Site: NBU 922-30N PAD Well: NBU 922-30N1BS

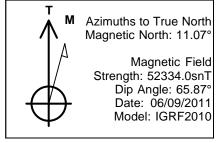
Wellbore: OH

Design: PLAN #1 PRELIMINARY

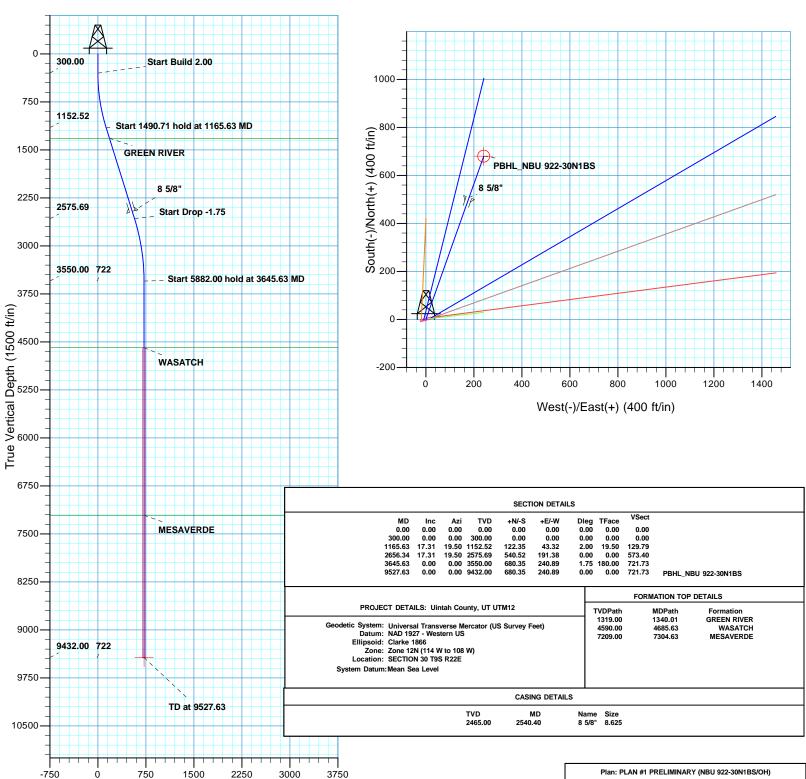




Vertical Section at 19.50° (1500 ft/in)



Created By: RobertScott Date: 14:28, June 14 2011



API Well Number: 43047517110000



# **Kerr McGee Oil and Gas Onshore LP**

Uintah County, UT UTM12 NBU 922-30N PAD NBU 922-30N1BS

ОН

Plan: PLAN #1 PRELIMINARY

# **Standard Planning Report**

14 June, 2011







EDM5000-RobertS-Local Database: Company:

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 NBU 922-30N PAD Site:

Well: NBU 922-30N1BS

Wellbore: ОН

PLAN #1 PRELIMINARY Design:

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-30N1BS

GL 4926' & KB 9' @ 4935.00ft (ASSUMED) GL 4926' & KB 9' @ 4935.00ft (ASSUMED)

True

Minimum Curvature

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum: Mean Sea Level

NBU 922-30N PAD, SECTION 30 T9S R22E Site

Northing: 14,530,114.58 usft Site Position: Latitude: 40° 0' 4.532 N From: Lat/Long Easting: 2,065,029.66 usft Longitude: 109° 29' 1.838 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.97

13.200 in

Well NBU 922-30N1BS, 542 FSL 1734 FWL

**Well Position** +N/-S 5.10 ft 14,530,120.01 usft Latitude: 40° 0' 4.583 N Northing: +E/-W 19.33 ft Easting: 2,065,048.90 usft Longitude: 109° 29' 1.590 W

**Position Uncertainty** 0.00 ft Wellhead Elevation: **Ground Level:** 4,926.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 06/09/2011 11.07 65.87 52.334

PLAN #1 PRELIMINARY Design **Audit Notes:** Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 19.50

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,165.63	17.31	19.50	1,152.52	122.35	43.32	2.00	2.00	0.00	19.50	
2,656.34	17.31	19.50	2,575.69	540.52	191.38	0.00	0.00	0.00	0.00	
3,645.63	0.00	0.00	3,550.00	680.35	240.89	1.75	-1.75	0.00	180.00	
9,527.63	0.00	0.00	9,432.00	680.35	240.89	0.00	0.00	0.00	0.00 P	BHL_NBU 922-30N





Database: EDM50 Company: Kerr Mo

EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 922-30N PAD

Well: NBU 922-30N1BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-30N1BS

GL 4926' & KB 9' @ 4935.00ft (ASSUMED) GL 4926' & KB 9' @ 4935.00ft (ASSUMED)

True

Minimum Curvature

sign:	PLAN #1 PRE	LIMINART							
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Start Build		0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	19.50	399.98	1.65	0.58	1.75	2.00	2.00	0.00
500.00	4.00	19.50	499.84	6.58	2.33	6.98	2.00	2.00	0.00
600.00 700.00	6.00 8.00	19.50 19.50	599.45 698.70	14.79 26.28	5.24 9.31	15.69 27.88	2.00 2.00	2.00 2.00	0.00 0.00
800.00 900.00	10.00 12.00	19.50 19.50	797.47 895.62	41.03 59.01	14.53 20.89	43.52 62.60	2.00 2.00	2.00 2.00	0.00 0.00
1,000.00	14.00	19.50	993.06	80.22	28.40	85.10	2.00	2.00	0.00
1,100.00 1,165.63	16.00 17.31	19.50 19.50	1,089.64 1,152.52	104.61 122.35	37.04 43.32	110.98 129.79	2.00 2.00	2.00 2.00	0.00 0.00
	'1 hold at 1165.63								
1,200.00 1,300.00	17.31 17.31	19.50 19.50	1,185.33 1,280.80	131.99 160.04	46.73 56.67	140.02 169.77	0.00 0.00	0.00 0.00	0.00 0.00
1,340.01	17.31	19.50	1,319.00	171.26	60.64	181.68	0.00	0.00	0.00
GREEN RIV	ER								
1,400.00 1,500.00 1,600.00	17.31 17.31 17.31	19.50 19.50 19.50	1,376.27 1,471.74 1,567.21	188.09 216.14 244.20	66.60 76.53 86.46	199.53 229.29 259.05	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1,700.00	17.31	19.50	1,662.68	272.25	96.39	288.81	0.00	0.00	0.00
1,800.00 1,900.00 2,000.00	17.31 17.31 17.31	19.50 19.50 19.50	1,758.15 1,853.62 1,949.09	300.30 328.35 356.40	106.33 116.26 126.19	318.57 348.33 378.08	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2,100.00 2,200.00	17.31 17.31	19.50 19.50	2,044.56 2,140.03	384.46 412.51	136.12 146.06	407.84 437.60	0.00 0.00	0.00 0.00	0.00 0.00
2,300.00 2,400.00 2,500.00	17.31 17.31 17.31	19.50 19.50 19.50	2,235.50 2,330.96 2,426.43	440.56 468.61 496.66	155.99 165.92 175.85	467.36 497.12 526.88	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2,540.40 <b>8 5/8"</b>	17.31	19.50	2,465.00	508.00	179.87	538.90	0.00	0.00	0.00
2,600.00	17.31	19.50	2,521.90	524.72	185.79	556.64	0.00	0.00	0.00
2,656.34	17.31	19.50	2,575.69	540.52	191.38	573.40	0.00	0.00	0.00
\$\text{Start Drop -} 2,700.00 \\ 2,800.00 \\ 2,900.00 \\ 3,000.00	1.75 16.55 14.80 13.05 11.30	19.50 19.50 19.50 19.50	2,617.46 2,713.74 2,810.79 2,908.54	552.51 577.97 600.65 620.53	195.63 204.64 212.67 219.71	586.12 613.13 637.19 658.28	1.75 1.75 1.75 1.75	-1.75 -1.75 -1.75 -1.75	0.00 0.00 0.00 0.00
3,100.00	9.55	19.50	3,006.89	637.59	225.75	676.37	1.75	-1.75	0.00
3,200.00 3,300.00 3,400.00	7.80 6.05 4.30	19.50 19.50 19.50	3,105.74 3,205.01 3,304.60	651.80 663.16 671.66	230.78 234.81 237.82	691.45 703.51 712.52	1.75 1.75 1.75	-1.75 -1.75 -1.75	0.00 0.00 0.00
3,500.00	2.55	19.50	3,404.41	677.29	239.81	718.49	1.75	-1.75	0.00
3,600.00 3,645.63	0.80 0.00	19.50 0.00	3,504.37 3,550.00	680.05 680.35	240.78 240.89	721.41 721.73	1.75 1.75	-1.75 -1.75	0.00 0.00
	0 hold at 3645.63								
3,700.00 3,800.00	0.00	0.00 0.00	3,604.37 3,704.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00	0.00 0.00	0.00 0.00
3,900.00 4,000.00	0.00	0.00 0.00	3,804.37 3,904.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00	0.00 0.00	0.00
4,100.00	0.00	0.00	4,004.37	680.35	240.89	721.73	0.00	0.00	0.00





Database: Company:

EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

NBU 922-30N PAD Site: Well: NBU 922-30N1BS

Wellhore ОН

Project:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-30N1BS

GL 4926' & KB 9' @ 4935.00ft (ASSUMED) GL 4926' & KB 9' @ 4935.00ft (ASSUMED)

True

Minimum Curvature

Wellbore:	OH								
Design:	PLAN #1 PRE	LIMINARY							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00 4,300.00 4,400.00	0.00 0.00 0.00	0.00 0.00 0.00	4,104.37 4,204.37 4,304.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
4,500.00 4,600.00 4,685.63	0.00 0.00 0.00	0.00 0.00 0.00	4,404.37 4,504.37 4,590.00	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
<b>WASATCH</b> 4,700.00 4,800.00	0.00 0.00	0.00 0.00	4,604.37 4,704.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00 0.00	0.00 0.00	0.00 0.00
4,900.00	0.00 0.00 0.00	0.00	4,804.37	680.35	240.89 240.89	721.73 721.73 721.73	0.00	0.00	0.00
5,000.00 5,100.00 5,200.00	0.00 0.00	0.00 0.00 0.00	4,904.37 5,004.37 5,104.37	680.35 680.35 680.35	240.89 240.89	721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
5,300.00 5,400.00	0.00 0.00 0.00	0.00	5,204.37 5,304.37 5,404.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00	0.00 0.00
5,500.00 5,600.00 5,700.00	0.00 0.00	0.00 0.00 0.00	5,504.37 5,604.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
5,800.00 5,900.00	0.00	0.00	5,704.37 5,804.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00	0.00	0.00
6,000.00 6,100.00 6,200.00	0.00 0.00 0.00	0.00 0.00 0.00	5,904.37 6,004.37 6,104.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
6,300.00 6,400.00 6,500.00	0.00 0.00 0.00	0.00 0.00 0.00	6,204.37 6,304.37 6,404.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
6,600.00 6,700.00 6,800.00	0.00 0.00 0.00	0.00 0.00 0.00	6,504.37 6,604.37 6,704.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
6,900.00 7,000.00	0.00 0.00	0.00 0.00	6,804.37 6,904.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00 0.00	0.00 0.00	0.00 0.00
7,100.00 7,200.00 7,300.00	0.00 0.00 0.00	0.00 0.00 0.00	7,004.37 7,104.37 7,204.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
7,304.63	0.00	0.00	7,209.00	680.35	240.89	721.73	0.00	0.00	0.00
7,400.00 7,500.00 7,600.00 7,700.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	7,304.37 7,404.37 7,504.37 7,604.37	680.35 680.35 680.35 680.35	240.89 240.89 240.89 240.89	721.73 721.73 721.73 721.73	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
7,800.00 7,900.00 8,000.00	0.00 0.00 0.00	0.00 0.00 0.00	7,704.37 7,804.37 7,904.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8,100.00 8,200.00 8,300.00	0.00 0.00 0.00	0.00 0.00 0.00	8,004.37 8,104.37 8,204.37	680.35 680.35 680.35	240.89 240.89 240.89	721.73 721.73 721.73	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8,400.00 8,500.00 8,600.00 8,700.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	8,304.37 8,404.37 8,504.37 8,604.37	680.35 680.35 680.35 680.35	240.89 240.89 240.89 240.89	721.73 721.73 721.73 721.73	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
8,800.00 8,900.00 9,000.00 9,100.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	8,704.37 8,804.37 8,904.37 9,004.37	680.35 680.35 680.35 680.35	240.89 240.89 240.89 240.89	721.73 721.73 721.73 721.73	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00





Database: Company: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 NBU 922-30N PAD Site: Well: NBU 922-30N1BS

Wellbore:

ОН

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well NBU 922-30N1BS

GL 4926' & KB 9' @ 4935.00ft (ASSUMED) GL 4926' & KB 9' @ 4935.00ft (ASSUMED)

True

Minimum Curvature

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,200.00	0.00	0.00	9,104.37	680.35	240.89	721.73	0.00	0.00	0.00
9,300.00 9,400.00	0.00 0.00	0.00 0.00	9,204.37 9,304.37	680.35 680.35	240.89 240.89	721.73 721.73	0.00 0.00	0.00 0.00	0.00 0.00
9,500.00 9,500.00 9.527.63	0.00 0.00 0.00	0.00	9,404.37	680.35 680.35	240.89 240.89	721.73 721.73 721.73	0.00	0.00 0.00 0.00	0.00
-,-	0.00 922-30N1BS	0.00	9,432.00	680.35	240.89	721.73	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30N1B: - plan hits target cent - Circle (radius 25.00		0.00	9,432.00	680.35	240.89	14,530,804.35	2,065,278.17	40° 0' 11.308 N	109° 28' 58.494 W

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,540.40	2,465.00 8 5/8"		8.625	11.000

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,340.01 4,685.63 7,304.63	4,590.00	GREEN RIVER WASATCH MESAVERDE				

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,165.63	3 1,152.52	122.35	43.32	Start 1490.71 hold at 1165.63 MD
2,656.34	2,575.69	540.52	191.38	Start Drop -1.75
3,645.63	3,550.00	680.35	240.89	Start 5882.00 hold at 3645.63 MD
9,527.63	9,432.00	680.35	240.89	TD at 9527.63

NBU 922-30J4CS / 922-30K4CS / 922-30N1BS / 922-30N1S / 922-30N4BS / 922-3001BS / 922-30O1CS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30N Pad Surface Use Plan of Operations 1 of 12

# Kerr-McGee Oil & Gas Onshore. L.P.

# **NBU 922-30N Pad**

<u>API #</u>	N	IBU 922-30J4CS		
	Surface:	547 FSL / 1754 FWL	SESW	Lot
	BHL:	1384 FSL / 1673 FEL	NWSE	Lot
<u>API #</u>	N	IBU 922-30K4CS		
	Surface:	539 FSL / 1724 FWL	SESW	Lot
	BHL:	1547 FSL / 1977 FWL	NESW	Lot
<u>API #</u>	N	IBU 922-30N1BS		
	Surface:	542 FSL / 1734 FWL	SESW	Lot
	BHL:	1222 FSL / 1976 FWL	SESW	Lot
API #4304750768	N	IBU 922-30N1S		
	Surface:	537 FSL / 1715 FWL	SESW	Lot
	BHL:	963 FSL / 1735 FWL	SESW	Lot
<u>API #</u>	N	IBU 922-30N4BS		
	Surface:	544 FSL / 1744 FWL	SESW	Lot
	BHL:	571 FSL / 1974 FWL	SESW	Lot
<u>API #</u>	N	IBU 922-30O1BS		
	Surface:	550 FSL / 1763 FWL	SESW	Lot
	BHL:	1058 FSL / 1672 FEL	SWSE	Lot
<u>API #</u>	N	IBU 922-30O1CS		
	Surface:	552 FSL / 1773 FWL	SESW	Lot
	BHL:	732 FSL / 1671 FEL	SWSE	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on May 5, 2011. Present were:

- · David Gordon, Melissa Wardle, Karl Wright and Dan Emmett BLM; and
- $\cdot$  John Slaugh and Mitch Batty Timberline Engineering & Land Surveying, Inc.; and
- · Jacob Dunham 609 Consulting, LLC; and
- $\cdot \qquad \text{Andy Lytle, Charles Chase, Ken Gathings, Roger Parry, Grizz Oleen, and Sheila Wopsock Kerr-McGee}$

# A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

NBU 922-30J4CS / 922-30K4CS / 922-30N1BS / 922-30N1S / 922-30N4BS / 922-30O1BS / 922-30O1CS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30N Pad Surface Use Plan of Operations 2 of 12

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

No segments require a ROW.

#### B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road-utility corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s) adjacent to the well pad, as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

NBU 922-30J4CS / 922-30K4CS / 922-30N1BS / 922-30N1S / 922-30N4BS / 922-3001BS / 922-30O1CS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30N Pad Surface Use Plan of Operations 3 of 12

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

There are no new roads to be constructed.

#### C. Location of Existing Wells:

A) Refer to Topo Map C.

#### D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 184, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on June 2, 2011. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components that contain fluids (i.e. production tanks, produced liquids tanks, but typically excluding dehy's and/or separators). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event, and be independent of the back cut. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

#### **GAS GATHERING**

Please refer to Exhibit A and Topo D- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 4,725^{\circ}$  and the individual segments are broken up as follows:

#### The following segments are "onlease", no ROW needed.

- ±535' (0.10 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 8" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±75' (0.01 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 8" buried gas gathering pipeline from the edge of the pad to the proposed cross country tie-in point (SE/4 SW/4). Please refer to Exhibit A, Line 16.
- ±395' (0.07 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 8" buried cross country gas gathering pipeline from the 30N proposed gas pipeline to the 30N/30L intersection (SE/4 SW/4). Please refer to Exhibit A, Line 15.
- ±2,150' (0.4 miles) Section 30 T09S R22E (SW/4 SW/4) On-lease UTU0463, BLM surface, New 8" buried gas gathering pipeline from the proposed cross country gas pipeline to the edge of the 30L pad intersection (NW/4 SW/4). Please refer to Exhibit A, Line 14.

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±1,570' (0.3 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, BLM surface, New 10" buried gas gathering pipeline from the 30L intersection to the existing 16" buried pipeline (SE/4 NW/4). Please see Exhibit A, Line 13. This pipeline will be used concurrently with the 30L pad.

#### **LIQUID GATHERING**

Please refer to Exhibit B and Topo D- Pad and Pipeline Detail.

Kerr-McGee proposes to install liquid gathering lines in a southwesterly direction to tie into a proposed southeasterly flowing buried pipeline. The total of this proposed liquid gathering from the meter to the Section lease line (SE/4 SE/4) is ±9,655' and the individual segments are broken up as follows:

#### The following segments are "onlease", no ROW needed.

- ±535' (0.10 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±75' (0.01 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid pipeline from the edge of the pad to the proposed cross country tie-in point (SE/4 SW/4). Please refer to Exhibit B, Line 19.
- ±395' (0.07 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried cross country liquid pipeline from the 30N proposed liquid gathering pipeline to the 30N/30L intersection (SE/4 SW/4). Please refer to Exhibit B, Line 18.
- ±2,745' (0.52 miles) Section 30 T09S R22E (SW/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid pipeline from the proposed cross country liquid gathering line to the proposed liquid transfer line segment (NW/4 SW/4). Please refer to Exhibit B, Lines 16 and 17. This pipeline will be used concurrently with the 30L pad.
- ±1,010' (0.19 miles) Section 30 T09S R22E (SE/4 NW/4) Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed 30G Intersection to the proposed 30L intersection (SE/4 NW/4). Please refer to Exhibit B, Line 2. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30L pads. Two (2) lines for a total of 2,020'.
- ±495' (0.09 miles) Section 30 T09S R22E (SE/4 NW/4) Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed Transfer line to the tie-in point at the proposed 30G/30F intersection (SW/4 NE/4). Please refer Exhibit B, Line 13. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30L pads. Two (2) Lines for a total of 990'.
- ±2,895' (0.55 miles) Section 30 T09S R22E (SW/4 NE/4) Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30G/30F intersection going southeast to the edge of the lease boundry of SE/4 SE/4. Please refer to Exhibit B, Line 15. The remaining liquid pipeline segment will travel to the existing tank battery on State surface. Kerr-McGee will apply for the appropriate State easements under separate cover. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30L pads.

Kerr-McGee, additionally will install a liquid gathering line in a southwesterly direction to tie-into a proposed northwesterly flowing buried pipeline. The total of this proposed liquid gathering from the meter to the tie in point is  $\pm 6,320'$  and the individual segments are broken up as follows:

## The following segments are "onlease", no ROW needed.

- ±535' (0.10 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±75' (0.01 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid pipeline from the edge of the pad to the proposed cross country tie-in point (SE/4 SW/4). Please refer to Exhibit B, Line 19.
- ±395' (0.07 miles) Section 30 T09S R22E (SE/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried cross country liquid pipeline from the 30N proposed liquid pipeline to the 30N/30L intersection (SE/4 SW/4). Please refer to Exhibit B, Line 18.

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- ±2,745' (0.52 miles) Section 30 T09S R22E (SW/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid pipeline from the proposed cross country liquid gathering line to the proposed liquid transfer line segment (NW/4 SW/4). Please refer to Exhibit B, Lines 16 and 17. This pipeline will be used concurrently with the 30L pad.
- ±1,285' (0.24 miles) Section 30 T09S R22E (NW/4 SW/4) Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed 30L Intersection to the West Line of Section 30 where it will tie-into an existing liquid gathering pipeline on State surface.

  Please refer to Exhibit B, Line 1. Two (2) lines for a total of 2,570'. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30L pads.

#### **Pipeline Gathering Construction**

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr-McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45' for buried lines and 30' for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30'.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If all three lines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

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If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface. Please see site specific PODs and/or mapping materials for location of related facilities such as cathodic protection wells or pumping stations. Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, lateral T's, and/or cathodic protection wells will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

#### The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize the pit on this the proposed location as an Anadarko Completion Transport System (ACTS) staging pit which will be utilized for other completion operations in the area. The ACTS process will reduce the amount of truck traffic on a field-wide basis, also reducing vehicle emissions and fugitive dust generation.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit. Hog fence panels (5' X 16') will be built and painted shadow gray and will be put up on the work side of the pit. Polypropylene netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will be also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6" aluminum pipe water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. Kerr-McGee understands that due to the temporary nature of this system BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

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Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

#### G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil/topsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

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Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

#### Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g), containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance, or meet the quantities criteria per BLM Instruction Memorandum No. 93-344, will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

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RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

#### H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

#### I. Well Site Layout:

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

Where produced liquids tanks are utilized, the tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids. The tanks will be fenced or capped to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without the prior approval of the BLM.

#### J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

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#### Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

#### **Final Reclamation**

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24" on 18 to 24" centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18"deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

#### Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

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Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Shadescale Mix	e Live Seed lbs/acre
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5
Crested wheatgrass (Ephraim)	) 1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

#### Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

#### Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 31, of the calendar year following the data collection.

#### K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### L. Other Information:

#### **Onsite Specifics:**

- A 404 Stream Alteration Permit will be obtained to cross the Sand Wash in the SE/4 of the section See Exhibit A or B.
- Facilities: Will be painted Shadow Grey
- Existing surface gas gathering pipeline will be removed from location if no longer in service

NBU 922-30J4CS / 922-30K4CS / 922-30N1BS / 922-30N1S / 922-30N4BS / 922-30O1BS / 922-30O1CS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30N Pad Surface Use Plan of Operations 12 of 12

#### Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

#### Resource Reports:

A Class I literature survey was completed on February 11, 2011, by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 10-243b.

A paleontological reconnaissance survey was completed on December 31, 2010, by Intermountain Paleo-Consulting. For additional details please refer to report IPC #10-33.

Biological field survey was completed on January 27, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-403.

Biological field survey was completed for the Southeast Trunk Liquid Line on June 2, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-457.

#### M. Lessee's or Operators' Representative & Certification:

Laura Abrams Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6356 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Laura Abrams June 2, 2011
Date

API Well Number: 43047517110000



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

April 4, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 922-30N1BS

T9S-R22E

Section 30 SESW (Surf), SESW (Bottom)

Surface: 542' FSL, 1734' FWL Bottom Hole: 1222' FSL, 1976' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 922-30N1BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

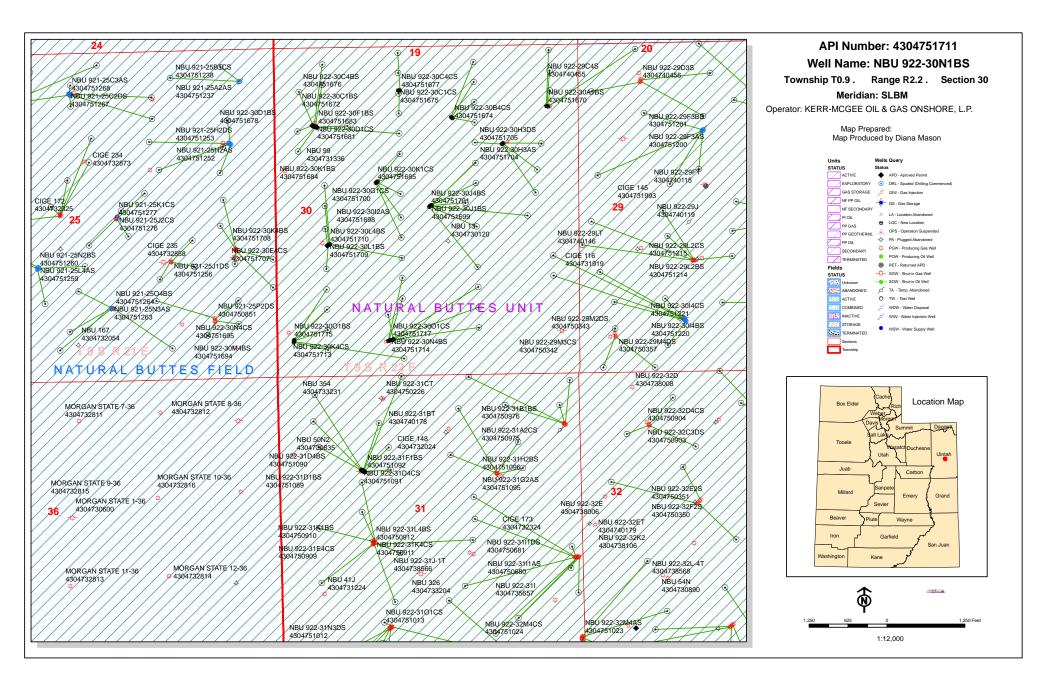
Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Sr. Staff Landman

Joe Matines



API Well Number: 43047517110000

# **United States Department of the Interior**

### BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

June 27, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

## **NBU 922-30M PAD**

BHL Sec 30 T09S R22E 1380 FSL 0758 FWL 43-047-51692 NBU 922-30M1BS Sec 30 T09S R22E 0566 FSL 0215 FWL BHL Sec 30 T09S R22E 1055 FSL 0758 FWL 43-047-51693 NBU 922-30M1CS Sec 30 T09S R22E 0556 FSL 0213 FWL BHL Sec 30 T09S R22E 0730 FSL 0757 FWL 43-047-51694 NBU 922-30M4BS Sec 30 T09S R22E 0536 FSL 0210 FWL BHL Sec 30 T09S R22E 0405 FSL 0757 FWL 43-047-51695 NBU 922-30N4CS Sec 30 T09S R22E 0546 FSL 0212 FWL BHL Sec 30 T09S R22E 0252 FSL 1974 FWL **NBU 922-30G PAD** 43-047-51696 NBU 922-30G3DS Sec 30 T09S R22E 2550 FNL 2411 FEL BHL Sec 30 T09S R22E 2517 FNL 1846 FEL 43-047-51697 NBU 922-30G4BS Sec 30 T09S R22E 2544 FNL 2403 FEL BHL Sec 30 T09S R22E 2199 FNL 1677 FEL 43-047-51698 NBU 922-30I2AS Sec 30 T09S R22E 2557 FNL 2419 FEL BHL Sec 30 T09S R22E 2527 FSL 0856 FEL 43-047-51699 NBU 922-30J1BS Sec 30 T09S R22E 2563 FNL 2426 FEL BHL Sec 30 T09S R22E 2360 FSL 1675 FEL

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

· <u>-</u>										
NBU 922-30G PAI	)									
		922-30G1CS	Sec	30	T09S	R22E	2538	FNL	2395	FEL
		BHL	Sec	30	T09S	R22E	1873	FNL	1678	FEL
10 015 51501		000 00-4-5	_				0.5.60		0.404	
43-047-51701	NBU	922-30J4BS				R22E R22E				
NBU 922-30H PAE	)	рпп	sec	30	1095	KZZE	1709	гоц	10/4	гыл
		922-30G1BS	Sec	30	T09S	R22E	1583	FNL	1247	FEL
		BHL	Sec	30	T09S	R22E	1547	FNL	1679	FEL
43-047-51703	NBU	922-30H2AS								
		рпг	sec	30	1095	R22E	1303	LNL	0012	LEL
43-047-51704	NBU	922-30H3AS	Sec	30	T09S	R22E	1571	FNL	1232	FEL
		BHL	Sec	30	T09S	R22E	2003	FNL	0685	FEL
43-047-51705	NBU	922-30H3DS								
NBU 922-30L PAD	,	BHL	sec	30	1095	KZZŁ	2369	FNL	0723	rel
		922-30E4BS	Sec	30	T09S	R22E	2112	FSL	0826	FWL
		BHL	Sec	30	T09S	R22E	2194	FNL	0760	FWL
43-047-51707	NBU	922-30E4CS								
		BHL	Sec	30	T09S	R22E	2519	Ł'NL	0760	F.M.L
43-047-51708	NBU	922-30K4BS	Sec	30	T09S	R22E	2106	FSL	0817	FWL
						R22E				
43-047-51709	NBU	922-30L1BS								
		BHL	Sec	30	T09S	R22E	2355	FSL	0759	F.M.T
43-047-51710	NBU	922-30L4BS	Sec	30	T09S	R22E	2096	FSL	0800	FWL
		BHL								
922-30N PAD										
43-047-51711	NBU	922-30N1BS								
		BHL	Sec	30	T09S	R22E	1222	FSL	1976	F.M.T
43-047-51712	NBU	922-30J4CS	Sec	30	T09S	R22E	0547	FSL	1754	FWL
						R22E				
43-047-51713	NBU	922-30K4CS								
		BHL	Sec	30	TU9S	R22E	1547	FSL	1977	FWL
43-047-51714	NRII	922-30N4BS	Sec	30	T098	R22F	0544	FST.	1744	TWT.
10 01, 01,11	1,20					R22E				
43-047-51715	NBU	922-3001BS	Sec	30	T09S	R22E	0550	FSL	1763	FWL

**RECEIVED:** Jul. 07, 2011

BHL Sec 30 T09S R22E 1058 FSL 1672 FEL

Page 3

API # WELL NAME

(Proposed PZ WASATCH-MESA VERDE)

#### 922-30N PAD

BHL Sec 30 T09S R22E 0732 FSL 1671 FEL

This office has no objection to permitting the wells at this time.

LOCATION

Michael L. Coulthard

DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
ou=Branch of Minerals, email=Michael\_Coulthard@blm.gov, c=US Date: 2011.06.27 08:54:22 -06'00'

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining

> Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:6-27-11

API Well Number: 43047517110000

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 6/22/2011 **API NO. ASSIGNED:** 43047517110000

WELL NAME: NBU 922-30N1BS

**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6356

**CONTACT:** Laura Abrams

PROPOSED LOCATION: SESW 30 090S 220E **Permit Tech Review:** 

> SURFACE: 0542 FSL 1734 FWL **Engineering Review:**

> **BOTTOM:** 1222 FSL 1976 FWL Geology Review:

**COUNTY: UINTAH** 

**LATITUDE: 40.00135 LONGITUDE:** -109.48367

UTM SURF EASTINGS: 629437.00 NORTHINGS: 4428798.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

**LEASE NUMBER: UTU463** PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO** 

**RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** 

 PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

**Potash** R649-3-2. General

✓ Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

**Drilling Unit** Oil Shale 190-13

Board Cause No: Cause 173-14 **₩ Water Permit:** 43-8496

**Effective Date:** 12/2/1999 **RDCC Review:** 

Siting: Suspends General Siting **Fee Surface Agreement** 

✓ Intent to Commingle ■ R649-3-11. Directional Drill

**Commingling Approved** 

**Comments:** Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason

API Well No: 43047517110000



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

## **Permit To Drill**

\*\*\*\*\*\*

Well Name: NBU 922-30N1BS **API Well Number:** 43047517110000

Lease Number: UTU463 Surface Owner: FEDERAL Approval Date: 7/7/2011

#### Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

#### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

## **Commingle:**

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

API Well No: 43047517110000

## **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

## **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

**Approved By:** 

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

RECEIVE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

5.	Lease Serial No.	
	UTU463	

	Pinn 17	UTU463
APPLICATION FOR PERMIT	TO BRILL ORREMENAI Utal	6. If Indian, Allottee or Tribe Name
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No. UTU63047A
lb. Type of Well: ☐ Oil Well ☐ Gas Well ☐ O	other Single Zone Multiple Zone	8. Lease Name and Well No. NBU 922-30N1BS
2. Name of Operator Contact KERR-MCGEE OIL&GAS ONSHOREMAIPLaura	t: LAURA ABRAMS Abrams@anadarko.com	9. API Well No. 43-041-51711
3a. Address PO BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include area code) Ph: 720-929-6356 Fx: 720-929-7356	10. Field and Pool, or Exploratory NATURAL BUTTES
4. Location of Well (Report location clearly and in accord	lance with any State requirements.*)	11. Sec., T., R., M., or Blk. and Survey or Area
At surface SESW 542FSL 1734FWL	40.001238 N Lat, 109.484461 W Lon	Sec 30 T9S R22E Mer SLB
At proposed prod. zone SESW 1222FSL 1976FWI	•	
14. Distance in miles and direction from nearest town or post APPROXIMATELY 42.9 MILES SOUTH OF VE		12. County or Parish UINTAH COUNTY  13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No. of Acres in Lease	17. Spacing Unit dedicated to this well
1222	551.00	
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on file
completed, applied for, on this lease, ft.	9528 MD 9432 TVD	WYB000291
21. Elevations (Show whether DF, KB, RT, GL, etc. 4926 GL	22. Approximate date work will start 12/01/2011	23. Estimated duration 60-90 DAYS
	24. Attachments	,
The following, completed in accordance with the requirements of	of Onshore Oil and Gas Order No. 1, shall be attached to	this form:
Well plat certified by a registered surveyor.     A Drilling Plan.     A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Of	tem Lands, the Item 20 above).  5. Operator certification	ions unless covered by an existing bond on file (see information and/or plans as may be required by the
25. Signature (Electronic Submission)	Name (Printed/Typed) LAURA ABRAMS Ph: 720-929-6356	Date 06/21/2011
Title REGULATORY ANALYST II		
Approved by (Signature)	Name (Printed/Typed Gerry Kenczka	DEC 2 9 2011
Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFI	
application approval does not warrant or certify the applicant hoperations thereon.  Conditions of approval, if any, are attached.	TIONS OF APPROVAL ATTACHED	ease which would entitle the applicant to conduct
Gile 19 II C C Section 1001 and Title 42 II C C Section 1212 .	make it a crime for any nerson knowingly and willfully	to make to any department or exercise of the Thirty I

Additional Operator Remarks (see next page)

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Electronic Submission #111142 verified by the BLM Well Information System For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal NOTICE OF APPROVAL

JAN 13 2092

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

## **Additional Operator Remarks:**

The following wells are also on the NBU 922-30N Pad:

NBU 922-30J4CS NBU 922-30K4CS NBU 922-30N1S (APD previously submitted-API #43-047-50768) NBU 922-30N4BS NBU 922-3001BS NBU 922-3001CS

The filing fee for this well will be submitted separately via overnight UPS delivery during the week of 6/20/2011 or 6/27/2011.

Please contact Laura Abrams at 720-929-6356, or via e-mail at laura.abrams@anadarko.com with any questions and/or concerns regarding this APD.

Thank you for your assistance and time processing this APD.



## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT **VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



## CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No:

Kerr-McGee Oil & Gas Onshore, LP

**NBU 922-30N1BS** 

43-047-51711

Location:

SESW, Sec. 30, T9S, R22E

UTU-463 Lease No:

**Natural Buttes Unit** Agreement:

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

## A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

## NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)		Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

## SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.
- Kerr McGee will adhere to all applicant committed conservation measures and conservation recommendations that are stated in the USFWS's "Final Biological Opinion for the Anadarko Petroleum Corporation Natural Buttes Unit and Bonanza Area Natural Gas Development Project.
- The operator will follow the Green River District Reclamation Guidelines for Reclamation.

## Mitigation for Invasive Weeds

- All vehicles and equipment will be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas will be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
  integrated pest management program is applicable, coordination has been undertaken with the
  state and local management program (if existing). A copy of the pest management plan will be
  submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.

## Mitigation for Paleontology

 A permitted paleontologist is to be present for monitor purposes during all surface disturbing actives: examples include the following building of the well pad, access road, and pipelines

## Mitigation Measures for Colorado River Fish Species:

• The best method to avoid entrapment is to pump from an off-channel location – one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.

Page 3 of 7 Well: NBU 922-30N1BS 1/5/2012

- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
  - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes:
  - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (see above); and
  - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32" mesh material.
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: (435) 781-9453

## Mitigation for Migratory birds.

- Construction and drilling is not allowed from January 1 August 31 to minimize impacts during Golden Eagle and Red-tailed hawk nesting
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified so surveys can be conducted. Depending upon the results of the surveys, permission to proceed may or may not be granted by the BLM Authorized Officer.

Page 4 of 7 Well: NBU 922-30N1BS

1/5/2012

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

## SITE SPECIFIC DOWNHOLE COAs:

• Gamma ray Log shall be run from Total Depth to Surface.

### Variances Granted: Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40' from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.
- FIT test. Variance granted due to well known geology and problems that can occur with the FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

## DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times.
   Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

Page 5 of 7 Well: NBU 922-30N1BS 12/22/2011

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
  encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
  Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM\_UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: NBU 922-30N1BS 12/22/2011

## **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - o Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - O Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 7 of 7 Well: NBU 922-30N1BS 12/22/2011

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
  the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
  All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
  product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
  accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

SUBMIT AS EMAIL

Print Form

# BLM - Vernal Field Office - Notification Form

Submitted By J. Scharnowske Phone Number 720.929.6304  Well Name/Number NBU 922-30N1BS  Qtr/Qtr SESW Section 30 Township 9S Range 22E  Lease Serial Number UTU 0463  API Number 4304751711  Spud Notice — Spud is the initial spudding of the well, not drilling out below a casing string.  Date/Time 06/04/2012 13:00 HRS AM PM   Casing — Please report time casing run starts, not cementing times.  Surface Casing Intermediate Casing Production Casing Liner Other  Date/Time 07/09/2012 08:00 HRS AM PM   BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test  Other Date/Time AM PM   Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT	Oper	rator KERR-McGEE OIL & GA	<u>NS</u> Rig Name	e/# <u>BUC</u>	KET RIG		
Well Name/Number NBU 922-30N1BS  Qtr/Qtr SESW Section 30 Township 9s Range 22E  Lease Serial Number UTU 0463  API Number 4304751711  Spud Notice — Spud is the initial spudding of the well, not drilling out below a casing string.  Date/Time 06/04/2012 13:00 HRS AM PM   Casing — Please report time casing run starts, not cementing times.  Surface Casing Intermediate Casing Production Casing Liner Other  Date/Time 07/09/2012 08:00 HRS AM PM   BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test  Other Date/Time AM PM   Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT	Subr	nitted By J. Scharnowske	Phone Nun	nber 720.	929.6304		
Qtr/Qtr SESW Section 30 Township 9s Range 22E   Lease Serial Number UTU 0463 API Number 4304751711   Spud Notice − Spud is the initial spudding of the well, not drilling out below a casing string. Date/Time 06/04/2012 13:00 HRS AM  PM  PM  PM  PM  PM  PM  PM  PM  PM							
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433.820.0300 OK BOVER TOOMS AT 433.701.7031		88.0986 OR LOVEL YOUNG AT 435.781.70			· · · · · · · · · · · · · · · · · · ·		

Sundry Number: 26640 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridia	an: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud: 6/5/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
0/3/2012	U TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Bate.			
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU TRIPLE A BU RAN 14" 36.7# SC	COMPLETED OPERATIONS. Clearly show all CKET RIG. DRILLED 20" CONE HEDULE 10 CONDUCTOR PIP (S. SPUD WELL LOCATION ON HRS.	DUCTOR HOLE TO 40'. PE. CEMENT WITH 28	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 08, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBE		
SIGNATURE	720 929-6304	Regulartory Analyst  DATE	
N/A		6/8/2012	

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

#### **ENTITY ACTION FORM**

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city DENVER

state CO

zip 80217

Phone Number: \_(720) 929-6304

#### Well 1

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304751714	NBU 922-30	N4BS	SESW	30	98	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
В	99999	3900		6/5/201	2	611	1 12012
Comments: MIRI	TRIPLE A BLICKET E	PIG		smi	JD	· >6 -	1

SPUD WELL LOCATION ON 06/05/2012 AT 07:30 HRS. BHL: Sesus

Well 2

API Number	Well	Name	QQ	Sec	Twp	Rng	County	
4304751711	NBU 922-30N	22-30N1BS		30	98	22E	UINTAH	
Action Code	Current Entity Number	New Entity Number	s	Spud Date			Entity Assignment Effective Date	
B	ddddd	2900		6/5/2012		61	14 /2012	

Comments:

MIRU TRIPLE A BUCKET RIG.

WSMVD

SPUD WELL LOCATION ON 06/05/2012 AT 10:00 HRS. BHL: Sesw

Well 3

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304751713	NBU 922-30	NBU 922-30K4CS		30	98	22E UINTAH	
Action Code	Current Entity Number	New Entity Number	S	Spud Date		Entity Assignment Effective Date	
B	99999	2900	6/5/2012		101	1412012	
Comments: MIDI	LTDIDLE A DUOKET D			LISY	NUD		

MIRU TRIPLE A BUCKET RIG.

SPUD WELL LOCATION ON 06/05/2012 AT 13:00 HRS BHL: TUSIN

**ACTION CODES:** 

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing enter a part of the last of t
- E Other (Explain in 'comments' section)

JUN 1 3 2012

#### JAIME SCHARNOWSKE

Name (Please Print)

-Schaumsk

Signature

Title

REGULATORY ANALYST

6/8/2012

Date

Sundry Number: 30388 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802	<b>PHONE NUMBER:</b> 17 3779 720 929-	9. FIELD and POOL or WILDCAT: 65NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 10 Township: 09.0S Range: 22.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
10/2/2012		☐ SITA STATUS EXTENSION	
	WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
No Activity for the	COMPLETED OPERATIONS. Clearly showner month of September 201	I2. Well TD at 2,545.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 03, 2012
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUM</b> 720 929-6857	BER TITLE Regulatory Analyst II	
SIGNATURE N/A		<b>DATE</b> 10/2/2012	

Sundry Number: 31483 API Well Number: 43047517110000

	STATE OF UTAH			FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDRY NOTICES AND REPORTS ON WELLS				6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047517110000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5M&TUTRAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	<b>HP, RANGE, MERIDIAN:</b> 30 Township: 09.0S Range: 22.0E Meri	idian: S		STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	TURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		TER CASING	CASING REPAIR
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	СН	HANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	□ cc	DMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FR	ACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	Пр	UG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME		ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:				
	REPERFORATE CURRENT FORMATION		DETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
✓ DRILLING REPORT	L TUBING REPAIR		NT OR FLARE	☐ WATER DISPOSAL ☐
Report Date: 11/2/2012	WATER SHUTOFF	∟ sı	TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	L 01	THER	OTHER:
No Activity for	the month of October 2012	2. We	II TD at 2,545.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 02, 2012
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUM!</b> 720 929-6857		TITLE Regulatory Analyst II	
SIGNATURE		_	DATE	
N/A		- 1	11/2/2012	

Sundry Number: 32621 API Well Number: 43047517110000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MII	-	3	5.LEASE D UTU463	DESIGNATION AND SERIAL NUMBER:
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIA	N, ALLOTTEE OR TRIBE NAME:	
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.	deep ontal l	en existing wells below aterals. Use APPLICATION		CA AGREEMENT NAME: L BUTTES
			1 -	AME and NUMBER: 2-30N1BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUN 430475	MBER: 17110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021		ONE NUMBER: 720 929-6	1	nd POOL or WILDCAT: L BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Merio	dian: \$	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR OT	HER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	FRACTURE TREAT		NEW CONSTRUCTION
	OPERATOR CHANGE	☐ F	PLUG AND ABANDON		PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	☐ F	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON
	TUBING REPAIR		/ENT OR FLARE		NATER DISPOSAL
DRILLING REPORT     Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION		APD EXTENSION
12/3/2012	WILDCAT WELL DETERMINATION		OTHER	OTHER	:
12 DESCRIPE BRODOSED OR	COMPLETED OPERATIONS. Clearly show				
	he month of November 201			oil, FOR	ccepted by the stah Division of Gas and Mining RECORD ONLY ecember 03, 2012
NAME (PLEASE PRINT)	PHONE NUME	BER	TITLE		
Lindsey Frazier	720 929-6857	DEK	Regulatory Analyst II		
SIGNATURE N/A			<b>DATE</b> 12/3/2012		

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9	
DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463	
	RY NOTICES AND REPORTS ON		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	oposals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047517110000	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18tl	PHC h Street, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridian:	s	STATE: UTAH	
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
✓ NOTICE OF INTENT	ACIDIZE	ALTER CASING	CASING REPAIR	
Approximate date work will start: 1/29/2013		CHANGE TUBING	CHANGE WELL NAME	
		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE  NEW CONSTRUCTION	
Date of Work Completion:		PLUG AND ABANDON	PLUG BACK	
		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION	
Report Date.	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: DV Tool	
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pe	rtinent details including dates, d	epths, volumes, etc.	
The operator requests authorization to place a DV tool in the production casing string and run a 2 stage cement job after setting the production casing to ensure cement is properly circulated to surface.  Below describes how it will be conducted: Run I-80 casing from TD to approximately 4,200 feet where the DV Tool will be placed. Run a centralizer and cement basket on the I80 joint below the DV Tool (use a stop ring to keep the CMT Basket at top of the tool joint). Run a DV Tool at approximately 4,200 feet. Run LTC/DXQ crossover. Run a centralizer and a cement basket on the Crossover (use a stop ring to keep the CMT Basket at bottom of the tool joint). Run DXQ casing to surface. The actual depth details will be captured in the well completion report.				
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUMBER</b> 720 929-6857	TITLE Regulatory Analyst II		
SIGNATURE N/A		DATE 1/29/2013		

Sundry Number: 34341 API Well Number: 43047517110000

STATE OF UTAH			FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly de reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		<b>9. API NUMBER:</b> 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	P n Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 0 Township: 09.0S Range: 22.0E Meridian	n: S	STATE: UTAH
11. CHECH	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT		7	
Report Date: 2/4/2013	L WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
No Activity for	the month of January 2013. \	Well TD at 2,545	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 13, 2013
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUMBER</b> 720 929-6857	R TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 2/4/2013	

RECEIVED: Feb. 04, 2013

Sundry Number: 35170 API Well Number: 43047517110000

STATE OF UTAH			FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly de reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		<b>9. API NUMBER:</b> 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	PI n Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 0 Township: 09.0S Range: 22.0E Meridian	: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT			
Report Date: 3/4/2013	L WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	the month of February 2013.		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 04, 2013
NAME (PLEASE PRINT) Lindsey Frazier	<b>PHONE NUMBER</b> 720 929-6857	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 3/4/2013	

Sundry Number: 35789 API Well Number: 43047517110000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9		
DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463		
SUNDF	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047517110000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	PHO h Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE:			COUNTY: UINTAH		
0542 FSL 1734 FWL QTR/QTR, SECTION, TOWNSI Qtr/Qtr: SESW Section: 3	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridian:	S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
The operator re Specifically, the o loop drilling option casing change in casing to 4.5 inch	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	the drilling plan. FIT wavier, closed nge. The production -80 11.6 BTC/LTC TC casing. All other	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER:  Depths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining  Date: March 28, 2013  By:		
NAME (PLEASE PRINT) Luke Urban	<b>PHONE NUMBER</b> 720 929-6501	TITLE Regulatory Specialist			
SIGNATURE N/A		DATE 3/21/2013			

Sundry Number: 35789 API Well Number: 43047517110000

#### Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

RECEIVED: Mar. 21, 2013

Sundry Number: 36308 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly de reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	P n Street, Suite 600, Denver, CO, 80217 3	<b>HONE NUMBER:</b> 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 3	HP, RANGE, MERIDIAN: 10 Township: 09.0S Range: 22.0E Meridiar	n: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT Approximate date work will start:  SUBSEQUENT REPORT Date of Work Completion:	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME	ALTER CASING CHANGE TUBING COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT PLUG AND ABANDON RECLAMATION OF WELL SITE	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION
Date of Spud:  DRILLING REPORT Report Date: 4/3/2013	REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION	SIDETRACK TO REPAIR WELL  VENT OR FLARE  SI TA STATUS EXTENSION  OTHER	TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER:
	COMPLETED OPERATIONS. Clearly show all or the month of March 2013. V		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 03, 2013
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	R TITLE Staff Regulatory Specialist	
SIGNATURE N/A		<b>DATE</b> 4/3/2013	

Sundry Number: 37364 API Well Number: 43047517110000

	STATE OF UTAH				FORM 9
[	DEPARTMENT OF NATURAL RESOULD DIVISION OF OIL, GAS, AND M		3	5.LEASE DESIGN UTU463	ATION AND SERIAL NUMBER:
SUNDR	Y NOTICES AND REPORTS	S ON	WELLS	6. IF INDIAN, ALL	OTTEE OR TRIBE NAME:
	posals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AG NATURAL BUT	REEMENT NAME: TES
1. TYPE OF WELL Gas Well				8. WELL NAME at NBU 922-30N1	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047517110	000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6	9. FIELD and PO	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Mei	ridian: \$	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDIC	ATE N	ATURE OF NOTICE, REPOR	t, or other [	DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING	CASING RI	EPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE V	VELL NAME
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT	WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	RACTURE TREAT	☐ NEW CON	STRUCTION
	OPERATOR CHANGE	F	PLUG AND ABANDON	PLUG BAC	к
SPUD REPORT	PRODUCTION START OR RESUME	□ F	RECLAMATION OF WELL SITE	RECOMPL	ETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORA	RY ABANDON
	TUBING REPAIR		/ENT OR FLARE	WATER DI	
✓ DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTE	
5/3/2013	_				INSION
	WILDCAT WELL DETERMINATION		OTHER	OTHER:	
	COMPLETED OPERATIONS. Clearly shoron the month of April 2013.	-	_	Accept Utah D Oil, Gas FOR RE	ted by the Division of and Mining SCORD ONLY 9, 2013
NAME (PLEASE PRINT) Teena Paulo	PHONE NUM	IBER	TITLE Staff Regulatory Specialist		
SIGNATURE	720 929-6236		DATE		
N/A			5/3/2013		

Sundry Number: 38644 API Well Number: 43047517110000

STATE OF UTAH		FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		<b>9. API NUMBER:</b> 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18tl	PHC h Street, Suite 600, Denver, CO, 80217 377	<b>DNE NUMBER:</b> 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 3	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridian:	S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT		ALTER CASING	CASING REPAIR
Approximate date work will start:		CHANGE TUBING  COMMINGLE PRODUCING FORMATIONS	CHANGE WELL NAME  CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:		FRACTURE TREAT	New construction
		PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT Report Date:	☐ WATER SHUTOFF ☐ S	SI TA STATUS EXTENSION	APD EXTENSION
6/5/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show all permonth of May 2013. Well TD a		epths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 06, 2013
NAME (PLEASE PRINT) Luke Urban	<b>PHONE NUMBER</b> 720 929-6501	TITLE Regulatory Specialist	
SIGNATURE	120 323-0301	DATE	
N/A		6/5/2013	

Sundry Number: 39643 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	<b>PHONE NUMBER:</b> 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Merio	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date: 7/2/2013		SITA STATUS EXTENSION	
	WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show he month of June 2013. We		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 10, 2013
NAME (PLEASE PRINT) Teena Paulo	PHONE NUME 720 929-6236	BER TITLE Staff Regulatory Specialist	
SIGNATURE	120 323-0230	DATE	
N/A		7/2/2013	

Sundry Number: 40830 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		<b>9. API NUMBER:</b> 43047517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802	<b>PHONE NUMBER:</b> 17 3779 720 929-	9. FIELD and POOL or WILDCAT: 65NIATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meri	idian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION			
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date: 8/5/2013	_	☐ SITA STATUS EXTENSION	
	WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly shown the month of July 2013. W		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 05, 2013
NAME (PLEASE PRINT) Teena Paulo	PHONE NUM 720 929-6236	BER TITLE Staff Regulatory Specialist	
SIGNATURE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DATE	
N/A		8/5/2013	

Sundry Number: 42055 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9		
I	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463		
SUNDR	RY NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly de reenter plugged wells, or to drill horizonta n for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047517110000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	P h Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: SESW Section: 3	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridiar	n: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	ALTER CASING CHANGE TUBING	CASING REPAIR  CHANGE WELL NAME		
Approximate date work will start:  SUBSEQUENT REPORT Date of Work Completion:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE  NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE  SIDETRACK TO REPAIR WELL	RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date: 9/4/2013	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
	COMPLETED OPERATIONS. Clearly show all	OTHER	OTHER:		
	the month of August 2013. W		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 04, 2013		
NAME (DI = : 2 = = : : = :		les e			
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	TITLE Staff Regulatory Specialist			
<b>SIGNATURE</b> N/A		<b>DATE</b> 9/4/2013			

Sundry Number: 43322 API Well Number: 43047517110000

	STATE OF UTAH		FORM 9		
[	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER UTU463		
SUNDR	Y NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly dea eenter plugged wells, or to drill horizonta n for such proposals.	epen existing wells below I laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30N1BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		<b>9. API NUMBER:</b> 43047517110000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	Ph Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 0 Township: 09.0S Range: 22.0E Meridian	: S	STATE: UTAH		
11. CHECK	APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT     Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
10/4/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all p		<u>'</u>		
	tivity since last report. Well T		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 07, 2013		
NAME (PLEASE PRINT) Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	TITLE Staff Regulatory Specialist			
SIGNATURE N/A		DATE 10/4/2013			

## State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By SYD GRIFFIN Phone Number 435-790-2921
Well Name/Number NBU 922-30N1BS
Qtr/Qtr SE/SW Section 30 Township 9S Range 22E
Lease Serial Number UTU 63047A
API Number 4304751711

Casing – Time casing run starts, not cementing ti	mes.
☐ Production Casing ☐ Other	
Date/Time AM [] PM []	
BOPE Initial BOPE test at surface casing point Other  Date/Time 11/4/13  9 AM PM	
Rig Move Location To: <u>NBU 922-30N PAD</u>	
Date/Time AM  PM  PM  Remarks  WELL 5 OF 7  TIME IS APPROXIMATE	RECEIVED 3 203  DIV. OF OIL, GAS & MINING

### State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>PIONEER 54</u>
Submitted By <u>STUART NEILSON</u> Phone Number <u>435-790-2921</u>
Well Name/Number <u>NBU 922-30N1BS</u>
Qtr/Qtr <u>SE/SW</u> Section <u>30</u> Township <u>9S</u> Range 22E
Lease Serial Number <u>UTU 63047A</u>
API Number <u>4304751711</u>

Cas	sing – Time casing run starts, not cementing times.	
	Production Casing Other	
	Date/Time <u>11/8/13</u> <u>8</u> AM PM D	
<u>BOI</u>	PE Initial BOPE test at surface casing point Other	
	Date/Time AM [] PM []	
_	Move ation To: <u>NBU 922-30N PAD</u>	RECEIVED
	Date/Time AM [] PM []	DIV. OF OIL, GAS & MINING
Rer	narks <u>WELL 5 OF 7</u> TIME IS APPROXIMATE	

Sundry Number: 46368 API Well Number: 43047517110000

	STATE OF UTAH				FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		3	5.LEASE UTU46	DESIGNATION AND SERIAL NUMBER:
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF IND	IAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form		r CA AGREEMENT NAME: AL BUTTES			
1. TYPE OF WELL Gas Well					NAME and NUMBER: 22-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NI</b> 43047	JMBER: 517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		ONE NUMBER: 79 720 929-6		and POOL or WILDCAT: AL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL		COUNTY			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 3	HP, RANGE, MERIDIAN: 10 Township: 09.0S Range: 22.0E Meri	idian: \$	s	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	T, OR C	THER DATA
TYPE OF SUBMISSION		TYPE OF ACTION			
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show completing the well. Well T	(   (   (   (   (   (   (   (   (   (		FOI	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION ER:  Iumes, etc.  Accepted by the Utah Division of il, Gas and Mining R RECORD ONLY January 03, 2014
NAME (PLEASE PRINT) Kay E. Kelly	<b>PHONE NUM</b> 720 929 6582	BER	TITLE Regulatory Analyst		
SIGNATURE N/A			<b>DATE</b> 1/2/2014		

RECEIVED: Jan. 02, 2014

Sundry Number: 47459 API Well Number: 43047517110000

	STATE OF UTAH				FORM 9
I	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MIR		6	5.LEASE UTU46	DESIGNATION AND SERIAL NUMBER:
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF IND	IAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		1	r CA AGREEMENT NAME: AL BUTTES	
1. TYPE OF WELL Gas Well				1	NAME and NUMBER: 22-30N1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			<b>9. API NU</b> 43047	IMBER: 517110000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		ONE NUMBER: 79 720 929-6	1	and POOL or WILDCAT: AL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0542 FSL 1734 FWL				COUNTY	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 3	HP, RANGE, MERIDIAN: 10 Township: 09.0S Range: 22.0E Merio	dian: \$	s	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR O	THER DATA
TYPE OF SUBMISSION		TYPE OF ACTION			
	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  ✓ PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show 30N1BS was placed on productions.	G G G G G G G G G G G G G G G G G G G		oi FOI	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE  NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION ER: LUMBES, etc. Accepted by the Utah Division of II, Gas and Mining R RECORD ONLY February 05, 2014
NAME (DI EASE DDINT)	PHONE NUME	RED	TITLE		
NAME (PLEASE PRINT) Doreen Green	435 781-9758	JER .	Regulatory Analyst II		
<b>SIGNATURE</b> N/A			<b>DATE</b> 2/4/2014		

RECEIVED: Feb. 04, 2014

API Well Number: 43047517110000 Form 3160-4 FORM APPROVED **UNITED STATES** OMB No. 1004-0137 (August 2007) DEPARTMENT OF THE INTERIOR Expires: July 31, 2010 BUREAU OF LAND MANAGEMENT Lease Serial No. UTU463 WELL COMPLETION OR RECOMPLETION REPORT AND LOG 1a. Type of Well Oil Well **⊠** Gas Well ☐ Dry 6. If Indian, Allottee or Tribe Name ☐ Other b. Type of Completion New Well ■ Work Over □ Deepen ☐ Plug Back □ Diff. Resvr. Unit or CA Agreement Name and No. Other UTU63047A 2. Name of Operator Contact: KAY KELLY KERR-MCGEE OIL AND GAS ONSH@RÆail: Kay.Kelly@anadarko.com 8. Lease Name and Well No. Contact: KAY KELLY NBU 922-30N1BS P.O. BOX 173779 3a. Phone No. (include area code) 9. API Well No. DENVER, CO 82017 Ph: 720-929-6000 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with Federal requirements)\* NATURAL BUTTES SESW 542FSL 1734FWL 40.001238 N Lat, 109.484461 W Lon At surface 11. Sec., T., R., M., or Block and Survey or Area Sec 30 T9S R22E Mer SLB At top prod interval reported below SESW 1240FSL 1966FWL 12. County or Parish UINTÁH SESW 1209FSL 1985FWL 14. Date Spudded 06/05/2012 15. Date T.D. Reached 16. Date Completed 17. Elevations (DF, KB, RT, GL)\* 11/08/2013 □ D & A Ready to Prod. 4945 KB 02/03/2014 18. Total Depth: MD 9530 19. Plug Back T.D.: MD 9468 20. Depth Bridge Plug Set: TVD 9426 TVD 9364 Type Electric & Other Mechanical Logs Run (Submit copy of each) RADIAL CBL/GR/CCL/TEMP **⊠** No Was well cored? 22. Yes (Submit analysis) Was DST run? ▼ No Yes (Submit analysis) Yes (Submit analysis) Directional Survey?  $\square$  No 23. Casing and Liner Record (Report all strings set in well) No. of Sks. & Bottom Stage Cementer Slurry Vol. Hole Size Size/Grade Wt. (#/ft.) Cement Top\* (MD) (MD) Depth Type of Cement (BBL) 14.000 STL 20.000 36.7 11.000 8.625 J-55 28.0 19 2529 806 1670 7.875 4.500 I-80 19 9514 230 11.6 24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD	) Packer Depth (MD)	
2.375	8930								
25. Produ	cing Intervals			26. Perforation R	Record				
	Formation	Тор	Bottom	Perfora	ted Interval	Size	No. Holes	Perf. Status	
A)	MESAVERDE	7401	937	9	7401 TO 9379	0.410	192	OPEN	
B)									
C)									
D)									
27. Acid,	Fracture, Treatment,	Cement Squeeze, Etc.							
	Depth Interval				Amount and Type of	Material			
	7401 TC	9379 PUMP 12,763 E	PUMP 12,763 BBLS SLICKWATER AND 270,021 LBS 30/50 MESH SAND						

28. Production - Interval A Oil Gravity Production Method Produced Date Tested Production BBL MCF BBL Corr. API Gravity 02/03/2014 02/08/2014 24 8.0 2353.0 FLOWS FROM WELL 0.0 Choke Tbg. Press Csg. 24 Hr. Oil Water Gas:Oil Well Status MCF BBL 1781 Rate BBL Ratio Size Flwg. Press 20/64 2488.0 2353 0 **PGW** 28a. Production - Interval B Water Date First Test Hours Oil Gas Oil Gravity Gas Production Method MCF BBL BBL Corr. API Produced Date Tested Production Gravity Choke 24 Hr. Well Status Water Gas:Oil Tbg. Press Csg. Oil Gas BBL Ratio Size Flwg. Rate

43-047-51711

State

MD

TVD

UT

Amount Pulled

200.110	duction - Inter	val C								
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	-1	
28c. Pro	duction - Inter	val D	<u> </u>		•			<b> </b>		
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status		
29. Disp SOL		(Sold, used	l for fuel, vent	ed, etc.)	1			<u>I</u>		
		s Zones (I	nclude Aquife	rs):				31.1	Formation (Log) Marke	ers
tests.	v all important including deprecoveries.	zones of poth interval	porosity and control tested, cushio	ontents there on used, time	eof: Corec e tool ope	d intervals an en, flowing ar	d all drill-stem nd shut-in pressures			
	Formation		Тор	Bottom		Descript	ions, Contents, etc.		Name	Тор
32. Addi	tional remark	(include I	olugging proce	edure):					GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	Meas. Depth  1312 1695 2231 4734 7377
32. Addi	first 210 ft. o ace hole was ? 4983 feet.	f the surfa drilled wi DQX csg	ace hole was th an 11 in. b	drilled with oit. A DV to n surface t	ool was p o 4981 ft	laced in the	remainder of well from 4981 was run from 4981 oort & final			
surfa feet ft. to surv		ochmonte:								

Electronic Submission #237093 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal

Name (please print)	KAY KELLY	Title SR. STAFF REGULATORY SPECIALIS	Title SR. STAFF REGULATORY SPECIALIS		
Signature	(Electronic Submission)	Date 02/27/2014			

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

					S ROCK		EGION ary Report	
Well: NRI I 922	30N1BS ORANGE						Spud Date: 7/2	28/2012
Project: UTAH-U			Site: NBL	J 922-30N	PAD		Opua Bato. 172	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLIN				e: 7/5/201				End Date: 11/9/2013
	RKB @4,945.00usft (a	above Mean S				S/22/E/3	0/0/0/26/PM/S/54	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/28/2012	3:00 - 4:30	1.50	MIRU	01	В	Р	,	SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING
	4:30 - 5:00	0.50	PRPSPD	06	Α	Р		PICK UP 12.25" BIT & 8" MUD MOTOR
	5:00 - 6:00	1.00	DRLSUR	02	В	Р		DRILL 12.25" SURFACE HOLE F/ 44'- 210'  ROP= 166' @ 110 FPH  WOB= 5/15K  RPM= 45- POWERHEAD /// 67- MUD MOTOR  UP/DN/RT= 37/33/34  SPP- ON/OFF= 600/300  M.W. 8.4# VIS 27  397 GPM PUMP RATE /// NO AIR  TORQUE- ON/OFF=2600/1000  NOV - ONLINE
	6:00 - 6:30	0.50	DRLSUR	06	Α	Р		TOOH & LAY DOWN 12.25" BIT
	6:30 - 8:00	1.50	DRLSUR	06	Α	Р		PICK UP 11" BIT, DIR. TOOLS, SCRIBE & TIH
	8:00 - 15:30	7.50	DRLSUR	02	D	P		DRILL 11" SURFACE HOLE F/ 210'-1220 ROP= 1010' @ 135 FPH WOB= 18/20K RPM= 45- POWERHEAD /// 67- MUD MOTOR UP/DN/RT= 63/41/52 SPP- ON/OFF= 1150/900 M.W. 8.4# VIS 27 397 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 2' BELOW TARGET LINE NOV - ONLINE 100% RETURNS
	15:30 - 0:00	8.50	DRLSUR	02	D	P		DRILL 11" SURFACE HOLE F/ 1220'-1940' ROP= 720' @ 85 FPH WOB= 18/20K RPM= 45- POWERHEAD /// 67- MUD MOTOR UP/DN/RT= 75/53/61 SPP- ON/OFF= 1350/1100 M.W. 8.4# VIS 27 397 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 8' ABOVE & 1' LEFT OF TARGET LINE NOV - ONLINE 90% RETURNS

#### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 7/29/2012 0:00 - 5:00 5.00 DRLSUR 02 Ρ D DRILL 11" SURFACE HOLE F/ 1940'- 2300' ROP= 360' @ 72 FPH WOB= 18/20K RPM= 45- POWERHEAD /// 67- MUD MOTOR UP/DN/RT= 80/60/70 SPP- ON/OFF= 1350/1100 M.W. 8.4# VIS 27 397 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 7' ABOVE & 4' LEFT OF TARGET LINE **NOV - ONLINE** 90% RETURNS 5:00 - 5:30 0.50 **DRLSUR** 08 Ζ \*\*\* RIG REPAIR (REPLACE SWAB IN PUMP) 5:30 - 8:00 Р 2.50 DRLSUR 02 D DRILL 11" SURFACE HOLE F/ 2300'-2545' ROP= 245' @ 98 FPH WOB= 18/20K RPM= 45- POWERHEAD /// 67- MUD MOTOR UP/DN/RT= 90/60/73 SPP- ON/OFF= 1450/1100 M.W. 8.4# VIS 27 397 GPM PUMP RATE /// NO AIR TORQUE- ON/OFF= 3000/2400 HOLE IN GOOD SHAPE 6' ABOVE & 4' LEFT OF TARGET LINE **NOV - ONLINE** 90% RETURNS 8:00 - 10:00 2.00 DRLSUR 05 Α Ρ CIRCULATE & CONDITION HOLE FOR 8-5/8" SURFACE CSG 10:00 - 12:00 2.00 DRLSUR 06 Α LAY DOWN DRILL STRING & DIR. TOOLS 12:00 - 13:00 1.00 **DRLSUR** 05 J Р CIRCULATE & CHECK FOR FLOW 13:00 - 15:30 LAY DOWN DRILL STRING & DIR. TOOLS 2 50 DRI SUR 06 Α 15:30 - 16:00 Ρ 0.50 **CSGSUR** 12 Α MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG INTO POSITION TO P/U. 16:00 - 18:00 **CSGSUR** 2.00 C Р 12 PJSM /// RUN 57 JT'S, 8-5/8",28# J-55, LT&C CSG /// SHOE SET @ 2514' & BAFFLE @ 2469' 18:00 - 18:30 0.50 **CSGSUR** 12 B Р PJSM /// PUMP ON CASING /// RUN 200' OF 1" /// RIG DOWN RIG, MOVE OFF WELL /// RIG UP CEMENT TRUCK & 2" HARD LINES. 18:30 - 20:30 2.00 **CSGSUR** 12 Ε PRO PETRO CMTERS MAKE UP HEAD & LOAD PLUG TEST LINES TO 2000 PSI. PUMP 140 BBLS FOLLOWED BY 20 BBL'S GEL WATER /// TAIL = 300 SX(61.4 BBLS) OF 15.8# & 1.15 YIELD (2% CALC, 1/4# /SK OF FLOCELE) /// DROP PLUG & DISPLACE W/ 154 BBLS WATER /// PLUG DOWN @ 19:54 07/29/2012 /// BUMP PLUG @ 700 PSI /// FINAL LIFT = 300 PSI. /// CHECK FLOAT - DID NOT HOLD SHUT CSG IN FOR 4 HOURS /// NO RETURNS THRU OUT JOB /// PUMP 150 SXS 15.8# (20.5 BBLS) CMT W/4% CALCIUM DOWN 1". NO CEMENT TO **SURFACE** 20:30 - 22:00 1.50 **CSGSUR** 12 Ε WOC FOR 1.5 HOURS & PUMP TOP OUT #2 WITH 123 SX CLASS G CMT @ 1.15 YIELD & 15.8 WT + 4% CACL2 /// NO CMT TO SURFACE

#### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 22:00 - 0:00 2.00 **CSGSUR** 12 Ε Ρ WOC FOR 1.5 HOURS & PUMP TOP OUT #3 WITH 233 SX CLASS G CMT @ 1.15 YIELD & 15.8 WT + 4% CACL2 /// CMT TO SURFACE /// RELEASE RIG @ 00:00 07/30/2012 0:00 - 1:00 11/4/2013 1.00 MIRU3 01 С Р 2560 SKID RIG 10' TO NBU 922-30N1BS 1:00 - 2:30 1.50 MIRU3 14 Ρ 2560 NIPPLE UP BOPE, CHOKE LINE, FLOW LINE Α 2:30 - 6:00 3 50 MIRU3 15 Р 2560 HELD SAFETY MEETING WITH RIG CREW & B & C TESTER, TEST BOPE, TEST PIPE RAMS, BLIND RAMS, INNER-OUTER BOP VALVES, CHOKE VALVES, FOR 5 MIN 250 LOW,10 MIN 5000 HIGH, ANN 5 MIN 250- 10 MIN 2500, TEST CASING TO 1500 PSI FOR 30 MIN 6:00 - 6:30 0.50 DRLPRC 24 В Р 2560 INSTALL WEAR BUSHING 6:30 - 9:00 06 2.50 **DRLPRC** Α Р 2560 PICK UP BIT - MUD MOTOR - DIRECTIONAL TOOL-SCRIBE TOOLS - TRIP IN HOLE & TAG CEMENT @ 2440' 9:00 - 9:30 0.50 DRLPRC Ρ 09 2560 **CUT & SLIP 12 WRAPS** 9:30 - 10:00 0.50 DRLPRC Ρ 2560 PRE-SPUD INSECTION 23 10:00 - 10:30 0.50 DRLPRC 02 Ρ 2560 DRILL SHOE TRACK BAFFLE @ 2489, SHOE @ 2530 & OPEN HOLE TO 2560' 10:30 - 17:00 6.50 DRLPRC 2560 02 В Р CLOSED LOOP SYSTEM DRILL F/ 2560 TO 3209', 649' @ 99.8' PH, AUTO DIGGER DOWN DRILLING BY HAND, TOTCO WORKING ON IT WOB 20 RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 6/4 K PSI ON /OFF 1300/1000, DIFF 200-500 PU/SO/RT = 100-75-90 K 10' N & 20' W OF TARGET CENTER SLIDE = 74' IN 1.51 HRS = 49' PH ROT= 575' IN 4.99 HRS = 115.2' PH FLARE= 5' CONN NOV / DEWATERING SEEPAGE 10 BBLS HR PUMPING LCM SWEEPS

2/21/2014 7:34:34AM 3

3209

SERVICE RIG

17:00 - 17:30

0.50

**DRLPRC** 

07

Α

### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 17:30 - 0:00 6.50 **DRLPRV** 02 Ρ 3209 В CLOSED LOOP SYSTEM DRILL F/ 3209' TO 3963', 754' @ 116' PH, AUTO DIGGER DOWN DRILLING BY HAND, TOTCO WORKING ON IT WOB 20 **RPM TOP DRIVE 60** (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 8/5 K PSI ON /OFF 1600/1200, DIFF 200-500 PU/SO/RT = 100-75-90 K 9' N & 3' W OF TARGET CENTER SLIDE = 43' IN .84 HRS = 51.2' PH ROT= 711' IN 5.66 HRS = 125.6' PH FLARE= 5'; CONN NOV / DEWATERING SEEPAGE 10 BBLS HR PUMPING LCM SWEEPS 11/5/2013 0:00 - 8:00 8.00 DRLPRV 3963 CLOSED LOOP SYSTEM DRILL F/ 3963' TO 4926', 963' @ 120.4' PH AUTO DIGGER, WORKING ON IT WOB 20 **RPM TOP DRIVE 60** (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 8/5 K PSI ON /OFF 1700/1400, DIFF 200-500 PU/SO/RT = 140-100-120 K 10' N & 10' W OF TARGET CENTER SLIDE = 12' IN .25 HRS = 48' PH ROT= 951' IN 122.7' PH FLARE= 5'; CONN NOV / DEWATERING SEEPAGE 10 BBLS HR PUMPING LCM SWEEPS 8:00 - 15:00 7.00 **DRLPRV** 02 4926 CLOSED LOOP SYSTEM DRILL F/ 4926' TO 5762', 836' @ 119' PH PH AUTO DIGGER. WORKING ON IT WOB 20 **RPM TOP DRIVE 60** (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 9/6 K PSI ON /OFF 1700/1400, DIFF 200-500 PU/SO/RT = 150-110-130 K 6' S & 6' W OF TARGET CENTER SLIDE = 30' IN .75 HRS = 40' PH ROT= 806' IN 6.25 HRS = 128.9' PH FLARE= 5'; CONN NOV / DEWATERING SEEPAGE 10 BBLS HR PUMPING LCM SWEEPS 15:00 - 15:00 0.00 **DRLPRV** 07 Ρ 5762 SERVICE RIG, BOP DRILL 93 SEC, F/T ANN & HCR

### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 15:00 - 0:00 9.00 **DRLPRV** 02 В Ρ 5762 CLOSED LOOP SYSTEM DRILL F/ 5762' TO 6412', 650' @ 72.2' PH **WOB 20** RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 10/8 K PSI ON /OFF 1700/100, DIFF 200-500 PU/SO/RT = 160-125-140 K .3 N & 5.3 W OF TARGET CENTER SLIDE = 26' IN .83 HRS = 30.2' PH ROT= 620' IN 8.17 HRS = 75.8' PH FLARE= 5'; CONN NOV / DEWATERING SEEPAGE 5 BBLS HR PUMPING LCM SWEEPS 11/6/2013 0:00 - 8:00 8.00 **DRLPRV** 02 В 6412 CLOSED LOOP SYSTEM DRILL F/ 6412' TO 6887', 475' @ 59.4' PH WOB 20 RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 10/8 K PSI ON /OFF 1700/100, DIFF 200-500 PU/SO/RT = 160-125-140 K 18' N & 15' W OF TARGET CENTER SLIDE = 24' IN .92 HRS = 26.1' PH ROT= 451' IN 7.08 HRS = 63.7' PH FLARE= 5', CONN NOV / DEWATERING SEEPAGE 5 BBLS HR PUMPING LCM SWEEPS 8:00 - 15:00 7.00 DRLPRV 6887 CLOSED LOOP SYSTEM DRILL F/ 6887 TO 7286', 399' @ 57' PH WOB 20 RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 10/8 K PSI ON /OFF 1700/100, DIFF 200-500 PU/SO/RT = 160-125-140 K 17' N & 9' W OF TARGET CENTER SLIDE = 0 ROT= 100% FLARE= 5'; CONN NOV / DEWATERING SEEPAGE 5 BBLS HR PUMPING LCM SWEEPS 15:00 - 15:30 0.50 **DRLPRV** 07 Ρ 7286 SERVICE RIG

#### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 15:30 - 0:00 8.50 **DRLPRV** 02 Ρ 7286 В CLOSED LOOP SYSTEM DRILL F/ 7286' TO 8046', 760' @ 89.4' PH **WOB 20** RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 10/8 K PSI ON /OFF 1700/100, DIFF 200-500 PU/SO/RT = 160-125-140 K 5' N & 4' W OF TARGET CENTER SLIDE = 0 ROT= 100% FLARE= 5'; CONN NOV / DEWATERING SEEPAGE 5 BBLS HR PUMPING LCM SWEEPS 11/7/2013 0:00 - 8:00 8.00 **DRLPRV** 02 8046 CLOSED LOOP SYSTEM DRILL F/ 8046' TO 8765', 719' @ 89.8' PH WOB 20 RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 13/10 K PSI ON /OFF 2000/1700, DIFF 200-500 PU/SO/RT =208-142-170 .5' N & 3' W OF TARGET CENTER SLIDE = 37' IN 1.42 HRS = 26' PH ROT= 682' IN 6.58 HRS = 103.6' PH FLARE= 10' CONN 20' NOV / DEWATERING SEEPAGE 5 BBLS HR PUMPING LCM SWEEPS 8:00 - 16:30 8.50 **DRLPRV** 02 8765 CLOSED LOOP SYSTEM DRILL F/ 8765' TO 9124', 359' @ 42.2' PH WOB 20 RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 27 TRQ ON/OFF = 13/10 K PSI ON /OFF 2200/1800, DIFF 200-500 PU/SO/RT =208-142-170 8' S & 4' E OF TARGET CENTER SLIDE = 20' IN 1 HR = 20' PH ROT= 339' IN 7.5 HRS = 45.2' PH FLARE= 10' CONN 20' NOV / DEWATERING SEEPAGE 5 BBLS HR PUMPING LCM SWEEPS DISPLACE HOLE WITH 10.8 PPG 35 VIS MUD @ 16:30 - 17:00 0.50 **DRLPRV** Ρ 9124 Α SERVICE RIG 17:00 - 17:30 Ρ 9124 0.50 **DRLPRV** 05 Α LOST CIRC, MIX LCM REGAIN @ 10%, BYPASS **SHAKERS**

#### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 17:30 - 0:00 6.50 **DRLPRV** 02 Ρ 9124 В CLOSED LOOP SYSTEM DRILL F/ 9124' TO 9431', 307' @ 47' PH **WOB 20** RPM TOP DRIVE 60 (2 PUMPS) - SPM 200 GPM 586 MW 11.6 PPG VIS 38, 10% LCM TRQ ON/OFF = 13/10 K PSI ON /OFF 2500/2100, DIFF 200-500 PU/SO/RT =208-142-170 8' S & 4' E OF TARGET CENTER SLIDE = 0 ROT= 100% FLARE= 0' CONN 0' NOV / BYPASS, RIG DESANDER ON RECEVED 500 BBLS 11.5PPG MUD FROM PLANT 11/8/2013 0:00 - 2:00 2.00 **DRLPRV** 02 9431 CLOSED LOOP SYSTEM DRILL F/ 9431 TO 9530', 99' @ 49.5' PH WOB 20 RPM TOP DRIVE 60 (2 PUMPS) - SPM 170 GPM 496 MW 11.6 PPG VIS 38, 10% LCM TRQ ON/OFF = 13/10 K PSI ON /OFF 2500/2100, DIFF 200-500 PU/SO/RT =220-145-178 14' S & 10'E OF TARGET CENTER SLIDE = 0 ROT= 100% FLARE= 0' CONN 0' NOV / BYPASS, RIG DESANDER ON RECEIVED 500 BBLS 11.5PPG MUD FROM PLANT 2:00 - 3:00 1.00 DRLPRV С 9530 CIRC & COND MUD FOR SHORT TRIP 05 3:00 - 4:00 Ε 9530 1.00 **DRLPRV** 06 Р SHORT TRIP 10 STANDS, NO PROBLEMS 4:00 - 5:00 1.00 **DRLPRV** 05 С Ρ 9530 CIRC & COND MUD FOR TRIP OUT 5:00 - 9:30 4.50 **DRLPRV** Α 9530 TRIP OUT FOR CASING RUN 9:30 - 10:00 0.50 Р 9530 PULL WEAR BUSHING **CSGPRO** 14 В 10:00 - 10:30 0.50 **CSGPRO** 07 9530 SERVICE RIG Α 10:30 - 18:30 8.00 **CSGPRO** 12 С Р 9530 HELD SAFETY MEETING WITH KIMZEY CASING & RIG CREWS, R/U & RUN / 217 TOTAL JOINTS OF CASING(99 JOINTS OF 4.5"/11.6# I-80 LTC + 1 MARKER) +(112 JOINTS OF 4.5"/11.6#/ 114 I-80) + ( DV TOOL)(1-DQX CROSSOVER) / SHOE @9513' FLOAT COLLOR @ 9468' / MVL MARKER @ 7301'/ DV TOOL @ 4982', DQX / X 8 RND X-OVER JOINT @ 4980', LAND CASING WITH 90 K, R/U & CIRC,R/D **CASING CREW** HIT TIGHT SPOT @ 7100' HAD TO WASH THOUGH 18:30 - 19:30 9530 1 00 **CSGPRO** CIR OUT GAS, 120 SPM

#### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: PROPETRO 11/11, PIONEER 54/54 **Event: DRILLING** End Date: 11/9/2013 Start Date: 7/5/2012 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 19:30 - 23:00 3.50 **CSGPRO** 12 Ρ 9530 Ε HELD SAFETY MEETING WITH RIG & BJ CEMENTING CREWS, & WEATHERFORD DV TOOL HAND, TEST LINES TO 5000, 1st STAGE PUMP 25 BBLS WATER 25% EXCESS,231 BBLS 960 SACKS 14.3 PPG 1.35 YLD, 50/50 poz+2%gell+0.55% R-3 + 10%salt+5#/blnd S.F..5%EC-1+.7%SMS+5#/Sk Kok-Seal+.25#/SK Celloflake DISPLACE WITH 80 BBLS WATER & 67 BBLS DRILL MUD 11.7 PPG, BUMP PLUG @ 2143 PSI 500 OVER FINAL LIFT OF 1420, TEST FLOATS, FLOATS HELD WITH 1.5 BBL BACK TO TRUCK, DROP BOMB WAITED 30 MINS, OPEN DV TOOL, BREAK CIRC & TURN OVER TO RIG TO CIRC, 20 BBLS SPACER & NO CEMENT 23:00 - 0:00 1.00 **CSGPRO** 13 9530 CIRC OUT CEMENT & WAIT 4 HRS 0:00 - 2:30 CIRC WELL WAITING ON CEMENT 11/9/2013 2.50 **CSGPRO** 13 Α 9530 2:30 - 4:30 2.00 **CSGPRO** 12 Ε Ρ 9530 HELD SAFETY MEETING WITH RIG & BJ CEMENTING CREWS,& WEATHERFORD DV TOOL HAND, TEST LINES TO 5000, 2nd STAGE, LEAD 25% EXCESS, 25 BBLS FRESH WATER, LEAD 232.7 BBLS 650 SACKS 12.5 PPG 2.01 YLD PLII +6% GELL +5#skKS +.4%FL52 +.4%SMS +2%CaCl2, TAIL 12.4 BBLS, 60 SACKS, 15.8 PPG 1.16 YLD "G"+.4%SMS+1%CaCl2 SHUT DOWN DROP CLOSING PLUG, DISPLACE WITH 77 BBLS CLAYCARE WATER, BUMP PLUG @ 2764 PSI,1500 OVER FINAL LIFT OF 920 PSI, BLEED OFF PSI TEST TOOL, 1.5 BBL BLED BACK OFF, 1 BBL CEMENT TO PIT 2nd STAGE FULL RETURN THOUGHT OUT BOTH JOBS, R/D 4:30 - 5:00 0.50 Ρ 9530 SET PACKOFF **CSGPRO** 14 Α 5:00 - 6:00 1.00 RDMO 01 Ε Ρ 9530 N/D, SAVE MUD, PREP FOR SKID, RELEASE RIG @ 06:00 11/9/13

# General

# **Customer Information** 7:

Company	US ROCKIES REGION
Representative	
Address	

# Well/Wellbore Information 1.2

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			US ROCKIES REGION	S REGION	We.
					11
General					Nun
Customer Information					nber:
Company	US ROCKIES REGION				: 4
Representative					30
Address					) 4
Well/Wellbore Information	lion				7517
Well	NBU 922-30N1BS ORANGE	Wellbore No.	НО		11(
Well Name	NBU 922-30N1BS	Wellbore Name	NBU 922-30N1BS	I	00
Report No.	_	Report Date	1/13/2014		0 0
Project	UTAH-UINTAH	Site	NBU 922-30N PAD		)
Rig Name/No.		Event	COMPLETION		
Start Date	12/11/2013	End Date	2/3/2014		
Spud Date	7/28/2012	Active Datum	RKB @4,945.00usft (above Mean Sea Level)		
UWI	SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0				

# General <del>.</del>.

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

Summary

1.5

# Initial Conditions 4.

Fluid Type		Fluid Density	3	Gross Interval	7,401.0 (usft)-9,379.0 (usft Start Date/Time	1/13/2014 12:00AM
Surface Press		Estimate Res Press		No. of Intervals	59 End Date/Time	1/13/2014 12:00AM
TVD Fluid Top		Fluid Head	1	Total Shots	192 Net Perforation Interval	64.00 (usft)
Hydrostatic Press		Press Difference		Avg Shot Density	3.00 (shot/ft) Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

# Intervals

# Perforated Interval 2.1

Misrun	
Reason	19.00 PRODUCTIO N
Charge Weight (gram)	19.00
Phasing Charge Desc /Charge (°) Manufacturer	
Phasing (°)	120.00
Carr Size (in)	3.125
Carr Type /Stage No	EXP/
Diamete r (in)	0.410 EXP/
Misfires/ Add. Shot	
Shot Density (shot/ft)	3.00
CCL@ CCL-T MD Top MD Base (usft) S (usft) (usft)	7,401.0
MD Top (usft)	7,401.0
CCL-T N S (usft)	
(nstt)	
Formation/ Reservoir	/13/2014   MESAVERDE/ 2:00AM
Date	1/13/2014 12:00AM

OpenWells

Perforated Interval (Continued)

													_	US ROCKIES REGION		API Wei
2.1 Pe	Perforated Interval (Continued)	ntinuec	e													ll Nu
Date	Formation/ C Reservoir (	(nsft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun	ımber
1/13/2014 12:00AM	MESAVERDE/			7,437.0	7,438.0	3.00		0.410	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		: 4
1/13/2014 12:00AM	MESAVERDE/			7,506.0	7,507.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		1304
1/13/2014 12:00AM	MESAVERDE/			7,541.0	7,542.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		475
1/13/2014 12:00AM	MESAVERDE/			7,559.0	7,560.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		171
1/13/2014 12:00AM	MESAVERDE/			7,571.0	7,572.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		100
1/13/2014 12:00AM	MESAVERDE/			7,580.0	7,582.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		00
1/13/2014 12:00AM	MESAVERDE/			7,628.0	7,629.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,682.0	7,683.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,703.0	7,704.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,718.0	7,719.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,786.0	7,787.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,812.0	7,813.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,832.0	7,834.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			7,964.0	7,965.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,028.0	8,029.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,044.0	8,046.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,060.0	8,062.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,126.0	8,128.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,154.0	8,155.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,162.0	8,163.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,178.0	8,179.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		

Perforated Interval (Continued)

													J	US ROCKIES REGION		API We
2.1 Pe	Perforated Interval (Continued)	ıtinued)														ll Nu
Date	Formation/ CC Reservoir (u.	(tsn) (ccr@ (cc	CCL-T N S (usft)	MD Top (usft)	MD Base (usft) ((	Shot I Density A (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun	ımber
1/13/2014 12:00AM	MESAVERDE/			8,252.0	8,253.0	3.00		0.410 E	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		: 4
1/13/2014 12:00AM	MESAVERDE/		-	8,264.0	8,265.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		1304
1/13/2014 12:00AM	MESAVERDE/			8,294.0	8,295.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		475
1/13/2014 12:00AM	MESAVERDE/		-	8,322.0	8,323.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		171
1/13/2014 12:00AM	MESAVERDE/		-	8,350.0	8,351.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		100
1/13/2014 12:00AM	MESAVERDE/			8,382.0	8,383.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		00
1/13/2014 12:00AM	MESAVERDE/			8,404.0	8,405.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,454.0	8,455.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/		-	8,500.0	8,501.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,519.0	8,520.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,538.0	8,539.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,596.0	8,597.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,612.0	8,613.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,643.0	8,644.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,664.0	8,665.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,691.0	8,692.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,716.0	8,717.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,741.0	8,742.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,783.0	8,784.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,822.0	8,823.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		
1/13/2014 12:00AM	MESAVERDE/			8,909.0	8,910.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N		

Perforated Interval (Continued)

2.1 P.	Perforated Interval (Continued)	(Continu	(þí												
Date	Formation/ Reservoir	CCL@ (nsft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/13/2014 12:00AM	MESAVERDE/			8,945.0	8,946.0	3.00		0.410 EXP	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			8,972.0	8,973.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			8,986.0	8,987.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,014.0	9,015.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,058.0	9,059.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,071.0	9,072.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,084.0	9,085.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,124.0	9,125.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,183.0	9,184.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,210.0	9,211.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,228.0	9,229.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,266.0	9,267.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,292.0	9,293.0	3.00		0.410	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,340.0	9,341.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014 12:00AM	MESAVERDE/			9,371.0	9,372.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO N	
1/13/2014	MESAVERDE/			9,378.0	9,379.0	3.00		0.410 EXP/	EXP/	3.125	120.00		19.00	19.00 PRODUCTIO	

**Plots** 

February 21, 2014 at 7:39 am

				U	S ROCI	KIES R	EGION	
				Opera	ition S	umma	ary Report	
Well: NBU 922-3	30N1BS ORANGE						Spud Date: 7/2	28/2012
Project: UTAH-U	JINTAH		Site: NBL	922-30N	N PAD			Rig Name No:
Event: COMPLE	TION		Start Date	e: 12/11/2	2013			End Date: 2/3/2014
Active Datum: R _evel)	KB @4,945.00usft (	above Mean Se	ea	UWI: SE	E/SW/0/9/	S/22/E/3	0/0/0/26/PM/S/54	2/W/0/1734/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/2/2013	11:30 - 13:30	2.00	SUBSPR	52	Е	Р		0 PSI ON SURFACE CASING, SURFACE HOOKED UP TO FLOW BANK RU HOT OILER, FILLED WITH 1/2 BBL PRESSURED TO 1250, BLED TO 1150 PSI HELD OK. BLED WELL DOWN, HOOKED UP TO FLOW BACK TANK
12/11/2013	7:00 - 7:15	0.25	SUBSPR	48		Р		JSA= ICE ON LOC
	7:15 - 12:00	4.75	SUBSPR	32	Α	Р		FILL COIL MU TOOLS TEST ON SURF, RIH TAG CEM @ 4873' C/O & DRILL TO CEM TO D/V TOOL @ 4977' DRILL THRU D/V CONTINUE TO RIH TAG @ 9360' C/O & DRILL TO 9470' CIRC CLEAN POOH RD MOVE TO 30N4BS
12/21/2013	-							
1/4/2014	10:00 - 11:00	1.00	SUBSPR	52	В	Р		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST -115 PSI. 2ND PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST -58 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.
								PRESSURE TEST 8 5/8 X 4 1/2 TO 510 PSI HELD FOR 5 MIN LOST -222 PSI, BLED PSI OFF NO PRESSURE ON SURFACE CASING FILLED SURFACE WITH 2 BBL H2O SURFACE OPEN TO PIT
1/7/2014	14:15 - 14:40	0.42	SUBSPR	32	1	Р		MOVE COIL TBG OVER, R/U COIL,
	14:40 - 15:40	1.00	SUBSPR	32	Α	Р		RIH W/ 2" COIL TBG AND WASH NOZZLE, TAG @ 9459' PBTD, COIL TBG MD
	15:40 - 18:00	2.33	SUBSPR	32	Α	Р		CIRC WELL W/ GETTING LOT OF BS AND CEMENT BACK , TOOH W/ COIL TBG, SHUT WELL IN, PUMP BRINE WTR THRU COIL, SDFN
1/10/2014	7:30 - 7:45	0.25	SUBSPR	48		Р		HSM, WORKING AROUND WIRE LINE
	7:45 - 7:45	0.00	SUBSPR	37	В	Р		MIRU CASED HOLE SOLUTIONS, 1ST SHOOT MESAVERDE STG #1
1/13/2014	7:00 - 9:45	2.75	FRAC	52	В	Р		PRESSURE TEST SURFACE LINES
1/14/2014	6:45 - 7:00	0.25	FRAC	48		Р		HSM, EYES ON

#### API Well Number: 43047517110000 US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30N1BS ORANGE Spud Date: 7/28/2012 Project: UTAH-UINTAH Site: NBU 922-30N PAD Rig Name No: **Event: COMPLETION** End Date: 2/3/2014 Start Date: 12/11/2013 UWI: SE/SW/0/9/S/22/E/30/0/0/26/PM/S/542/W/0/1734/0/0 Active Datum: RKB @4,945.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 7:00 - 17:30 10.50 FRAC 36 В Ρ REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS FRAC STG #1] WHP=1,795#, BRK DN PERFS=3,597#, @=4.2 BPM, INTIAL ISIP=2,767#, FG=.74, FINAL ISIP=2,934#, FG=.75, SET PLUG & PERFORATE STG #2 1/15/2014 6:15 - 6:30 0.25 **FRAC** Ρ HSM, DOUBLE CHECKING VALVES 6:30 - 17:30 Р 11.00 **FRAC** 36 В FRAC STG #2] WHP=2,018#, BRK DN PERFS=3,828#, @=5.3 BPM, INTIAL ISIP=2,691#, FG=.74, FINAL ISIP=2,990#, FG=.77, SET PLUG & PERFORATE STG #3 SWIFN. 1/16/2014 6:45 - 7:45 1.00 **FRAC** Ρ HSM, WORKING AROUND WIRE LINE 7:45 - 8:45 1.00 **FRAC** Ζ 46 Ε STARTED PUMPING STG HAD TO SHUT DOWN TO FIX LEAKS ON PUMP 8:45 - 18:00 9.25 **FRAC** Ρ FRAC STG #31 WHP=1456#. BRK DN PERFS=3.249#. @=4 BPM, INTIAL ISIP=2,387#, FG=.71, FINAL ISIP=2,720#, FG=.75, SET PLUG & PERFORATE STG #4 FRAC STG #4] WHP=1,570#, BRK DN PERFS=2,698#, @=3.7 BPM, INTIAL ISIP=1,902#, FG=.66, FINAL ISIP=2,531#, FG=.74, SET PLUG PERFORATE STG #5 **SWSIFN** 1/17/2014 6:15 - 6:30 0.25 **FRAC** HSM, OVER HEAD LOADS - 18:00 6:30 11.50 **FRAC** 36 В FRAC STG #5] WHP=1,610#, BRK DN PERFS=3,211#, @=4.5 BPM, INTIAL ISIP=2,046#, FG=.69, FINAL ISIP=2,635#, FG=.76, SET PLUG AND PERFORATE STG #6 FRAC STG #6] WHP=1,846#, BRK DN PERFS=3,348#, @=4 BPM, INTIAL ISIP=2,525#, FG=.75, FINAL ISIP=2,681#, FG=.77, SET PLUG AND PERFORATE STG #7 **SWIFN** 6:15 - 6:30 HSM, CHECKING VALVES 1/18/2014 0.25 **FRAC** 48

API We	ell Number	· 4304	751711			KIES RI	EGION	
				Opera	tion S	umma	ry Report	
Well: NBU 922-3	30N1BS ORANGE						Spud Date: 7/2	3/2012
Project: UTAH-L	JINTAH		Site: NBU	922-30N	I PAD			Rig Name No:
Event: COMPLE	ETION		Start Date	e: 12/11/2	013			End Date: 2/3/2014
Active Datum: R Level)	RKB @4,945.00usft (a	above Mean S	ea	UWI: SE	E/SW/0/9/	'S/22/E/30	0/0/0/26/PM/S/542	2/W/0/1734/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:30 - 20:00	13.50	FRAC	36	В	P		FRAC STG #7] WHP=904#, BRK DN PERFS=2955#,  @=4.8 BPM, INTIAL ISIP=1,9928#, FG=.69, FINAL ISIP=2,444#, FG=.75,  SET PLUUG AND PERFORATE STG #8  FRAC STG #8] WHP=1,210#, BRK DN PERFS=2,017#, @=4.8 BPM, INTIAL ISIP=1,478#, FG=.64, FINAL ISIP=2,237#, FG=.74,  SET TOP KILL  TOTAL BBLS=12,764 TOTAL SAND=270,021#
1/31/2014	6:45 - 7:00 7:00 - 17:00	0.25 10.00	DRLOUT DRLOUT	48 31	1	P P		HSM. SLIP, TRIPS & FALLS.  OPEN WELL 0 PSI.  ND WH. NU BOP. RU RIG FLOOR & TBG EQUIP.  PREP & TALLY NEW 23/8 SPLIT STING TBG. PU 37/8  BIT, X-DART, POBS & 1.875 XN NIP. RIH W/ 237 JTS  23/8 TBG. TAG KILL PLUG.RU DRL EQUIP. PSI TEST  BOP T/ 3000 PSI. GOOD TEST. BLEED OFF PSI.  SWIFWE.
2/3/2014	6:45 - 7:00	0.25	DRLOUT	48		Р		HSM. STAY OFF RIG FLOOR WHILE SWIVEL IS TURNING.

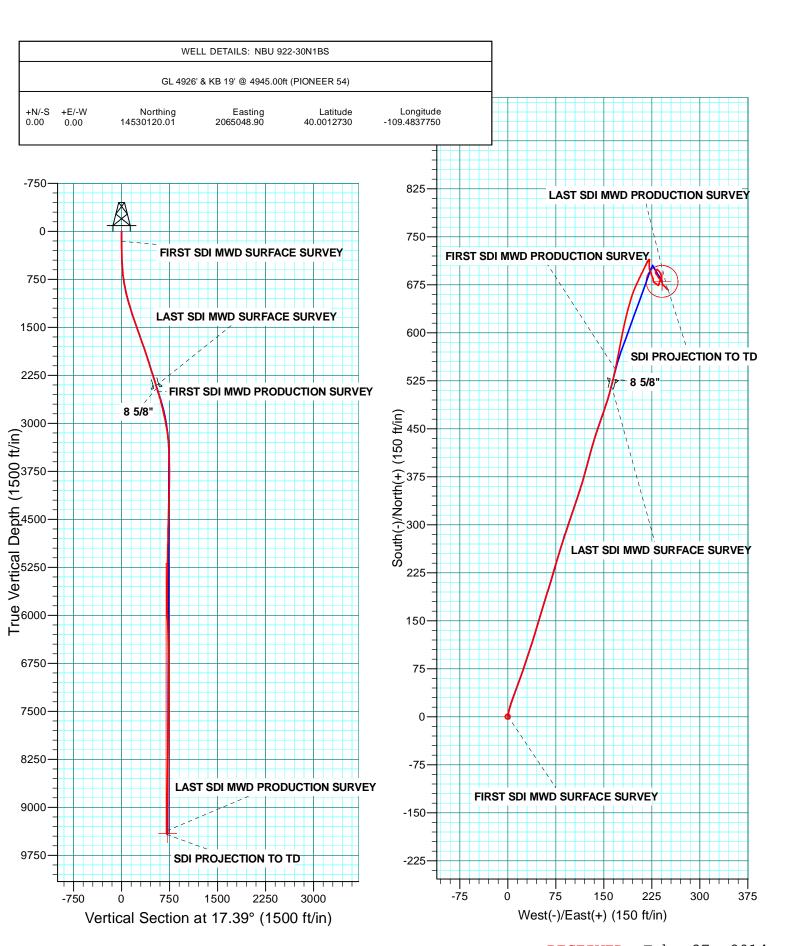
	<del>ell Number</del>	1501	., 31, 11			KIES RE	EGION	
				Opera	tion S	Summa	ry Report	
Vell: NBU 922-	30N1BS ORANGE						Spud Date: 7/2	28/2012
roject: UTAH-I	UINTAH		Site: NBU	922-301	N PAD			Rig Name No:
vent: COMPL	ETION		Start Date	e: 12/11/2	2013			End Date: 2/3/2014
ctive Datum: Fevel)	RKB @4,945.00usft (a	bove Mean S	Sea	UWI: SE	E/SW/0/9	/S/22/E/30	)/0/0/26/PM/S/54	42/W/0/1734/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	DRLOUT	44	C	P		OPEN WELL 0 PSI.  BRK CONV CIRC. BEG DRL OUT.  1st CBP)TAG SAND @ 7341' = 10' SAND. DRL OUT CBP @ 7351' IN 8 MIN, 500 PSI INCR. CONT RIH.  2nd CBP)TAG SAND @ 7592' = 20' SAND. DRL OUT CBP @ 7612' IN 8 MIN, 200 PSI INCR. CONT RIH.  3rd CBP)TAG SAND @ 7824' = 40' SAND. DRL OUT CBP @ 7864' IN 10 MIN, 250 PSI INCR. CONT RIH.  4th CBP)TAG SAND @ 8111' = 30' SAND. DRL OUT CBP @ 8141' IN 8 MIN, 200 PSI INCR. CONT RIH.  5TARTED SELLING GAS THRU BJD & 2 HAL 9K  AFTER CBP # 4.  5th CBP)TAG SAND @ 8342' = 30' SAND. DRL OUT CBP @ 8372' IN 8 MIN, 600 PSI INCR. CONT RIH.  6th CBP)TAG SAND @ 8601'= 25' SAND. DRL OUT CBP @ 8626' IN 8 MIN, 600 PSI INCR. CONT RIH.  7th CBP)TAG SAND @ 8905' = 30' SAND. DRL OUT CBP @ 8935' IN 8 MIN, 500 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 99153' IN 8 MIN, 500 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  8th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  9th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  9th CBP)TAG SAND @ 9123' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI INCR. CONT RIH.  9th CBP)TAG SAND @ 915' = 30' SAND. DRL OUT CBP @ 9153' IN 8 MIN, 1000 PSI MOD PSI



Well: NBU 922-30N1BS



Wellbore: OH



API Well Number: 43047517110000



## **US ROCKIES REGION PLANNING**

UTAH - UTM (feet), NAD27, Zone 12N NBU 922-30N PAD NBU 922-30N1BS

OH

Design: OH

## **Standard Survey Report**

11 November, 2013



API Well Number: 43047517110000



### **Scientific Drilling**

Survey Report



Company:

Geo Datum: Map Zone: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site:

NBU 922-30N PAD

Well: NBU 922-30N1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-30N1BS

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

True

Minimum Curvature

Denver Sales Office

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W) System Datum:

Mean Sea Level

Site NBU 922-30N PAD, SECTION 30 T9S R22E

Northing: 14,530,114.58 usft Site Position: Latitude: 40.0012590 From: Lat/Long Easting: 2,065,029.66 usft Longitude: -109.4838440 0.97 ° **Position Uncertainty:** 0.00 ft Slot Radius: 13.200 in **Grid Convergence:** 

Well NBU 922-30N1BS, 542 FSL 1734 FWL **Well Position** +N/-S 0.00 ft Northing: 14,530,120.01 usft Latitude: 40.0012730 +E/-W 0.00 ft Easting: 2,065,048.90 usft Longitude: -109.4837750 0.00 ft ft Ground Level: 4,926.00 ft **Position Uncertainty** Wellhead Elevation:

Wellbore	ОН				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	9/30/2013	10.85	65.80	52,025

ОН Design Audit Notes: ACTUAL Version: 1.0 Phase: Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 17.39

Survey Program	Date 11/11/2013		
From (ft)	To (ft) Survey (Wellbore)	Tool Name	Description
15.00 2,585.00	2,492.00 Survey #1 SDI MWD SURFACE (OH) 9,530.00 Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI SDI MWD	MWD - Standard ver 1.0.1 SDI MWD - Standard ver 1.0.1

Survey										
Measured Depth (ft)	Inclination Azimuth		Vertical Depth (ft)	+N/-S (ft)	Vertical +E/-W Section (ft) (ft)		Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	
157.00	0.63	350.40	157.00	0.77	-0.13	0.70	0.44	0.44	0.00	
FIRST SDI N	IWD SURFACE S	SURVEY								
187.00	0.70	346.23	187.00	1.11	-0.20	1.00	0.28	0.23	-13.90	
216.00	0.97	355.99	215.99	1.53	-0.26	1.38	1.05	0.93	33.66	
242.00	1.23	359.33	241.99	2.03	-0.28	1.85	1.03	1.00	12.85	
270.00	1.14	7.33	269.98	2.60	-0.25	2.41	0.67	-0.32	28.57	
298.00	1.23	13.39	297.98	3.17	-0.14	2.98	0.55	0.32	21.64	
327.00	1.32	18.75	326.97	3.79	0.04	3.63	0.51	0.31	18.48	



### **Scientific Drilling**

Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-30N PAD

 Well:
 NBU 922-30N1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method: Database: Well NBU 922-30N1BS

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

True

Minimum Curvature

Denver Sales Office

ırvey									
			Vantical			Mantic - I	Davis ::	Duite	Tours
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
355.0	00 1.41	23.76	354.96	4.41	0.28	4.29	0.53	0.32	17.89
447.0	00 2.02	14.01	446.92	7.02	1.13	7.04	0.73	0.66	-10.60
537.0		14.71	536.82	11.10	2.18	11.24	1.47	1.47	0.78
627.0		16.56	626.59	17.27	3.93	17.65	1.67	1.67	2.06
717.0	00 7.56	19.28	716.05	26.50	6.96	27.37	3.04	3.02	3.02
807.0	9.58	20.25	805.04	39.12	11.51	40.77	2.25	2.24	1.08
897.0	00 11.26	20.07	893.56	54.40	17.12	57.03	1.87	1.87	-0.20
987.0	00 13.37	18.84	981.48	72.50	23.50	76.21	2.36	2.34	-1.37
1,077.0	0 15.30	18.58	1,068.67	93.61	30.64	98.48	2.15	2.14	-0.29
1,167.0	0 17.32	17.35	1,155.05	117.65	38.42	123.76	2.28	2.24	-1.37
1,257.0	00 17.80	16.37	1,240.85	143.64	46.29	150.91	0.63	0.53	-1.09
1,347.0	00 18.03	17.35	1,326.49	170.13	54.32	178.59	0.42	0.26	1.09
1,437.0	00 18.73	17.17	1,411.90	197.23	62.74	206.97	0.78	0.78	-0.20
1,527.0	00 19.35	16.12	1,496.97	225.36	71.15	236.32	0.79	0.69	-1.17
1,617.0	00 19.70	16.91	1,581.80	254.20	79.70	266.40	0.49	0.39	0.88
1,707.0	19.70	17.87	1,666.53	283.15	88.77	296.74	0.36	0.00	1.07
1,797.0	00 19.35	19.28	1,751.36	311.66	98.34	326.81	0.65	-0.39	1.57
1,887.0	0 18.99	18.40	1,836.37	339.63	107.89	356.35	0.51	-0.40	-0.98
1,977.0	0 17.85	16.12	1,921.75	366.78	116.34	384.78	1.50	-1.27	-2.53
2,067.0	0 17.32	15.35	2,007.55	392.95	123.72	411.96	0.64	-0.59	-0.86
2,157.0	00 17.76	15.15	2,093.36	419.12	130.85	439.07	0.49	0.49	-0.22
2,247.0	00 17.94	18.75	2,179.03	445.49	138.89	466.64	1.24	0.20	4.00
2,337.0	0 17.94	19.54	2,264.66	471.68	147.99	494.35	0.27	0.00	0.88
2,427.0	0 17.76	16.64	2,350.33	497.89	156.55	521.93	1.01	-0.20	-3.22
2,492.0		14.71	2,412.32	516.70	161.84	541.46	1.21	-0.82	-2.97
LAST SD	I MWD SURFACE S		,						
2,529.0	00 16.91	13.65	2,447.69	527.23	164.50	552.30	1.20	-0.86	-2.86
8 5/8"									
2,585.0		11.98	2,501.34	542.90	168.07	568.32	1.20	-0.84	-2.99
	I MWD PRODUCTI								
2,680.0		9.70	2,592.61	568.75	173.03	594.47	0.99	-0.74	-2.40
2,775.0		11.98	2,684.25	593.37	177.73	619.37	1.12	-0.93	2.40
2,870.0		13.21	2,776.22	616.60	182.91	643.08	0.81	-0.74	1.29
2,965.0	00 11.96	14.18	2,868.75	637.46	187.98	664.50	2.33	-2.32	1.02
3,060.0	0 11.26	18.13	2,961.81	655.82	193.28	683.61	1.11	-0.74	4.16
3,155.0		23.94	3,055.12	672.45	199.64	701.38	1.47	-0.93	6.12
3,249.0	0 8.35	25.96	3,147.87	686.33	206.06	716.55	2.19	-2.16	2.15
3,344.0	0 6.33	26.57	3,242.08	697.22	211.42	728.54	2.13	-2.13	0.64
3,438.0		24.64	3,335.68	705.00	215.18	737.09	2.25	-2.24	-2.05
3,533.0	0 2.81	27.45	3,430.50	710.24	217.71	742.85	1.49	-1.48	2.96
3,627.0	0 1.14	36.27	3,524.44	713.04	219.33	746.00	1.80	-1.78	9.38
3,722.0		46.61	3,619.43	714.16	220.26	747.34	0.57	-0.55	10.88
3,816.0		88.89	3,713.43	714.51	220.99	747.90	0.44	-0.19	44.98
3,911.0		172.38	3,808.42	714.16	221.41	747.69	0.62	0.00	87.88



### **Scientific Drilling**

Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-30N PAD

 Well:
 NBU 922-30N1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method: Database:

Well NBU 922-30N1BS

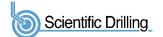
GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

True

Minimum Curvature
Denver Sales Office

Measured Depth									
(ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
()	( )	( )	(,	(11)	(14)	(1-1)	( / 1000011)	(	(7100001)
4,005.00	0.83	192.86	3,902.42	713.14	221.30	746.68	0.47	0.41	21.79
4,100.00	1.14	184.69	3,997.40	711.52	221.07	745.07	0.36	0.33	-8.60
4,194.00	1.32	178.54	4,091.38	709.51	221.02	743.14	0.24	0.19	-6.54
4,289.00	1.85	177.30	4,186.34	706.88	221.12	740.66	0.56	0.56	-1.31
4,384.00	2.02	181.61	4,281.29	703.68	221.15	737.61	0.24	0.18	4.54
4,478.00	2.11	179.77	4,375.23	700.29	221.11	734.37	0.12	0.10	-1.96
4,573.00	1.32	146.98	4,470.19	697.63	221.71	732.00	1.29	-0.83	-34.52
4,667.00	1.58	159.02	4,564.16	695.51	222.77	730.30	0.42	0.28	12.81
4,762.00	1.67	165.09	4,659.12	692.95	223.59	728.10	0.20	0.09	6.39
4,856.00	1.67	155.51	4,753.08	690.38	224.51	725.92	0.30	0.00	-10.19
4,951.00	1.76	154.01	4,848.04	687.81	225.72	723.83	0.11	0.09	-1.58
5,046.00	0.79	157.71	4,943.01	685.89	226.61	722.27	1.02	-1.02	3.89
5,141.00	1.14	171.59	5,038.00	684.35	227.00	720.91	0.44	0.37	14.61
5,236.00	1.32	175.02	5,132.98	682.32	227.23	719.05	0.20	0.19	3.61
5,331.00	1.41	172.91	5,227.95	680.07	227.47	716.97	0.11	0.09	-2.22
5,426.00	0.97	115.17	5,322.93	678.57	228.34	715.80	1.28	-0.46	-60.78
5,521.00	0.97	120.97	5,417.92	677.82	229.76	715.50	0.10	0.00	6.11
5,616.00	0.97	123.69	5,512.91	676.96	231.12	715.09	0.05	0.00	2.86
5,711.00	1.06	134.68	5,607.89	675.89	232.41	714.46	0.23	0.09	11.57
5,806.00	1.23	128.44	5,702.87	674.64	233.84	713.69	0.22	0.18	-6.57
5,901.00	0.18	147.86	5,797.86	673.88	234.71	713.23	1.12	-1.11	20.44
5,996.00	0.97	39.93	5,892.86	674.37	235.31	713.87	1.09	0.83	-113.61
6,091.00	2.11	16.20	5,987.82	676.67	236.31	716.37	1.35	1.20	-24.98
6,186.00	1.93	17.34	6,082.77	679.87	237.28	719.71	0.19	-0.19	1.20
6,280.00	1.49	22.97	6,176.72	682.51	238.23	722.51	0.50	-0.47	5.99
6,375.00	0.97	30.97	6,271.70	684.34	239.12	724.52	0.58	-0.55	8.42
6,470.00	1.23	357.74	6,366.68	686.04	239.50	726.27	0.71	0.27	-34.98
6,565.00	1.14	357.04	6,461.66	688.01	239.41	728.11	0.10	-0.09	-0.74
6,660.00	0.97	19.45	6,556.65	689.71	239.63	729.80	0.47	-0.18	23.59
6,754.00	1.58	328.04	6,650.63	691.56	239.21	731.44	1.31	0.65	-54.69
6,849.00	1.32	335.68	6,745.60	693.67	238.06	733.11	0.34	-0.27	8.04
6,944.00	1.14	324.08	6,840.58	695.43	237.06	734.49	0.32	-0.19	-12.21
7,040.00	1.23	316.44	6,936.56	696.95	235.79	735.56	0.19	0.09	-7.96 7.00
7,135.00	0.88	309.58	7,031.54	698.15	234.52	736.33	0.39	-0.37	-7.22
7,230.00	0.62	274.60	7,126.53	698.66	233.45	736.50	0.54	-0.27	-36.82
7,325.00	0.53	237.33	7,221.53	698.46	232.56	736.05	0.40	-0.09	-39.23
7,420.00	0.62	235.22	7,316.52	697.93	231.77	735.30	0.10	0.09	-2.22
7,515.00	0.44	201.04	7,411.52	697.30	231.22	734.53	0.37	-0.19	-35.98
7,610.00	0.53	182.84	7,506.51	696.52	231.07	733.74	0.19	0.09	-19.16
7,705.00	1.06	178.10	7,601.51	695.20	231.07	732.49	0.56	0.56	-4.99
7,800.00	1.06	176.87	7,696.49	693.45	231.15	730.84	0.02	0.00	-1.29
7,895.00 7,990.00	1.23 0.88	149.00 116.66	7,791.47 7,886.46	691.70 690.49	231.72 232.90	729.34 728.54	0.61 0.71	0.18 -0.37	-29.34 -34.04



### **Scientific Drilling**

Survey Report



Company: US R

US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-30N PAD

 Well:
 NBU 922-30N1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

**Survey Calculation Method:** 

TVD Reference: MD Reference:

North Reference:

Well NBU 922-30N1BS

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

True

Minimum Curvature

Denver Sales Office

gn:	ОН				Database:	Database:			Denver Sales Office		
еу											
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
	8,085.00	0.53	170.01	7,981.45	689.73	233.63	728.03	0.74	-0.37	56.16	
	8,179.00	1.06	143.12	8,075.44	688.61	234.23	727.14	0.67	0.56	-28.61	
	8,274.00	1.23	153.31	8,170.42	687.00	235.21	725.89	0.28	0.18	10.73	
	8,369.00	1.67	141.45	8,265.39	685.00	236.53	724.39	0.56	0.46	-12.48	
	8,464.00	1.85	144.79	8,360.35	682.67	238.28	722.68	0.22	0.19	3.52	
	8,558.00	0.88	149.97	8,454.32	680.80	239.52	721.27	1.04	-1.03	5.51	
	8,653.00	0.62	143.73	8,549.31	679.76	240.18	720.47	0.29	-0.27	-6.57	
	8,747.00	1.23	158.32	8,643.30	678.41	240.86	719.39	0.69	0.65	15.52	
	8,842.00	1.49	156.21	8,738.27	676.33	241.73	717.67	0.28	0.27	-2.22	
	8,936.00	1.49	148.21	8,832.24	674.17	242.87	715.95	0.22	0.00	-8.51	
	9,031.00	1.06	116.75	8,927.22	672.73	244.31	715.00	0.85	-0.45	-33.12	
	9,125.00	0.79	130.72	9,021.20	671.91	245.57	714.60	0.37	-0.29	14.86	
	9,220.00	0.97	143.38	9,116.19	670.84	246.55	713.87	0.28	0.19	13.33	
	9,316.00	0.88	145.75	9,212.18	669.58	247.45	712.93	0.10	-0.09	2.47	
	9,410.00	1.06	130.72	9,306.17	668.42	248.51	712.14	0.33	0.19	-15.99	
	9,473.00	1.32	126.59	9,369.15	667.60	249.54	711.67	0.43	0.41	-6.56	
	LAST SDI MV	ND PRODUCTIO	N SURVEY								
	9,530.00	1.32	126.59	9,426.14	666.82	250.59	711.24	0.00	0.00	0.00	
	SDI PROJEC	TION TO TD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30N1Bs - actual wellpath mis - Circle (radius 25.00	ses target cen	0.00 ter by 16.40	9,415.00 ft at 9518.50	680.35 ft MD (9414.6	240.89 4 TVD, 666.9	14,530,804.35 8 N, 250.38 E)	2,065,278.17	40.0031410	-109.4829150

Casing Points							
	Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter	
	(ft)	(ft)		Name	(in)	(in)	
	2,529.00	2,447.69	8 5/8"		8.625	11.000	

Design Annot	ations				
	Measured	Vertical	Local Cool	dinates	
	Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
	157.00	157.00	0.77	-0.13	FIRST SDI MWD SURFACE SURVEY
	2,492.00	2,412.32	516.70	161.84	LAST SDI MWD SURFACE SURVEY
	2,585.00	2,501.34	542.90	168.07	FIRST SDI MWD PRODUCTION SURVEY
	9,473.00	9,369.15	667.60	249.54	LAST SDI MWD PRODUCTION SURVEY
	9,530.00	9,426.14	666.82	250.59	SDI PROJECTION TO TD

API Well Number: 43047517110000

### **Scientific Drilling**



Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-30N PAD

 Well:
 NBU 922-30N1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 922-30N1BS

TVD Reference: GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

MD Reference: GL 4926' & KB 19' @ 4945.00ft (PIONEER 54)

North Reference: Tru

Survey Calculation Method: Minimum Curvature

Database: Denver Sales Office

Checked By:	Approved By:	Date:
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